My journey to become a Superhero of Maths

So you have decided to start your journey to becoming a Master of Maths then? Well, you have come to the right place!

This book should help you to train the skills you need to beat each hero. If you have a spare minute, work on some of the activities in order to make you stronger at maths! Remember though, these are just a few suggestions; there is a whole host of things you, your teachers or parents can also do to help you become the best you can be!

When you beat each Hero, stick your certificate into your book so you can keep track of how far along the journey you are.

With the right amount of training, it will not be long until you have defeated all the Heroes to become a Master of Maths!

Good luck brave warrior!

CONTENT

TRAIN TO BEAT BATMAN!

TRY OUT THESE ACTIVITIES WHILE YOU ARE TRAINING; SOME PEOPLE'S LEARNING STYLES ARE DIFFERENT AND THESE MIGHT HELP YOU CRACK IT!

SING UP!

Think of your favourite song. Got it? Now use the tune to create a song about the times table you are training for. Share it with your friends and see if you can help them too!

TIMES TABLE HOP!

Grab a bean bag and throw it as far as you can on the playground. Jump to collect it, counting in 2, 5 or 10 as you go!

FASTER THAN A COMPUTER!

Your partner uses a calculator while you use your mind. Who can get to the answer quickest?

BARMY ARMY!

Count how many people are on your table. Use your times table knowledge to work out how many arms there is altogether. What about the whole class?

FINGER LICKING GOOD!

Use your five times table knowledge to work out how many fingers there are in total at your table. Can you work out how many in the class?

HOLY TOE-LY!

Use your 10 times table knowledge to work out how many toes there are in total at your table. Can you work out how many in the class? What about fingers and toes?

LOOK WHO'S TALKING!

Can you do a funny accent? Now's the time to show it off! Go through the times tables in the strangest accent you can think of. Which of your friends is the funniest?

TAKE YOUR CHANCES, ROLL THE DICE!

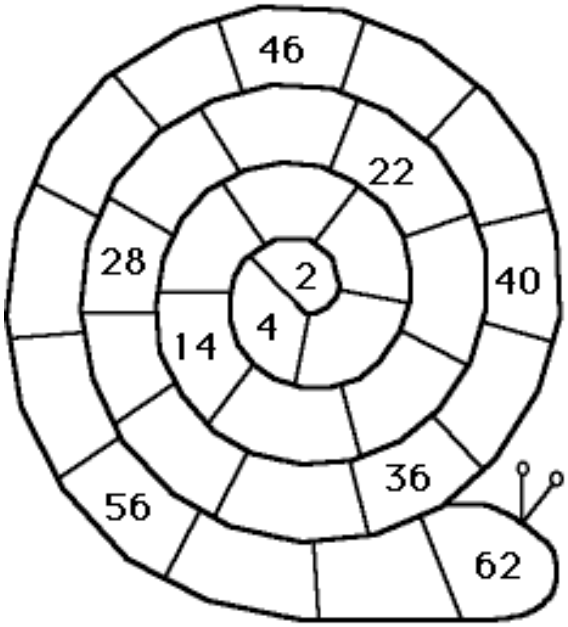
Get a ten-sided dice and a training partner. Choose a times table to practise and roll the dice. Whatever it lands on you need to multiply.

Early Multiplication

Multiplying By Two

2

Fill in the missing multiples of two in the spiral below:



Color the multiples of 2:

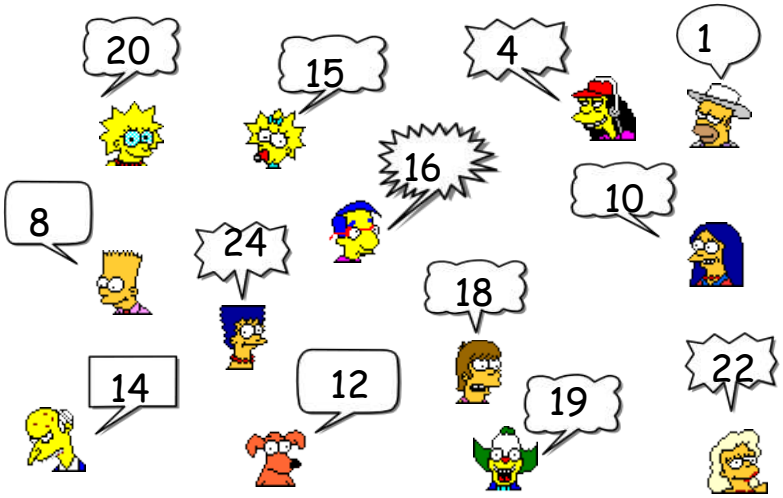
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Match pairs of equivalent numbers and formulas:

2 x 0	4	1 x 2	0
2 x 1	8	0 x 2	2 + 2 + 2 + 2
2 x 2	0	2 x 2	2
2 x 3	2	3 x 2	2 + 2
2 x 4	12	4 x 2	2 + 2 + 2
2 x 5	6	5 x 2	2 + 2 +2 + 2 + 2
2 x 6	10	6 x 2	2 + 2 + 2 + 2 + 2 + 2 + 2
2 x 7	16	10 x 2	2 + 2 + 2 + 2 + 2 + 2
2 x 8	18	7 x 2	2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2
2 x 9	20	8 x 2	2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2
2 x 10	14	9 x 2	2 + 2 + 2 + 2 + 2 + 2 + 2 + 2

Practise the 2 times table with the Simpsons!

Color the products of the 2 times table!



Which number is hiding under Bart's head?

Find the products:

2 x 5 =

2 x 1 =

2 x 9 =

2 x 3 =

2 x 10 =

2 x 12 =

2 x 6 =

2 x 7 =

2 x 2 =

2 x 8 =

2 x 4 =

2 x 0 =

2 x 11 =

Complete.

2 x ____ = 10

2 x ____ = 24

2 x ____ = 2

2 x ____ = 14

2 x ____ = 18

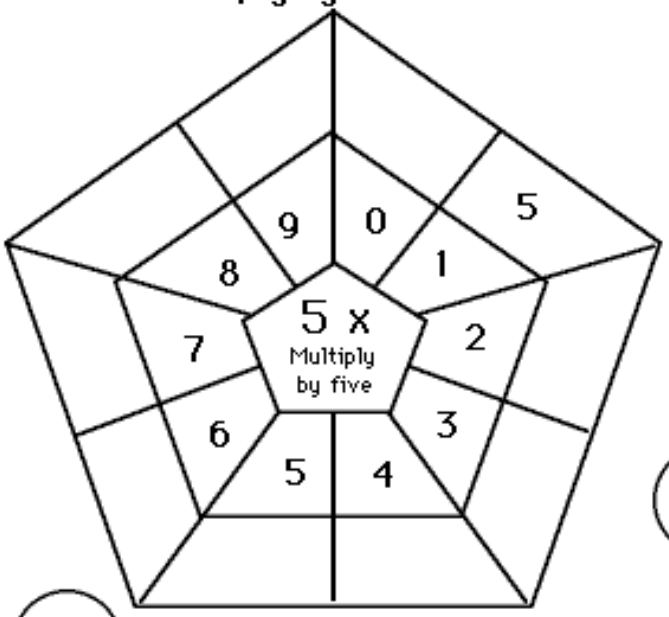
Color matching multiplication and product in the same color.

2 x 5	2 x 7	2 x 8	8	16	18	2 x 0	10	2 x 4	2 x 11
0	22	2 x 9	14	2					

Early Multiplication

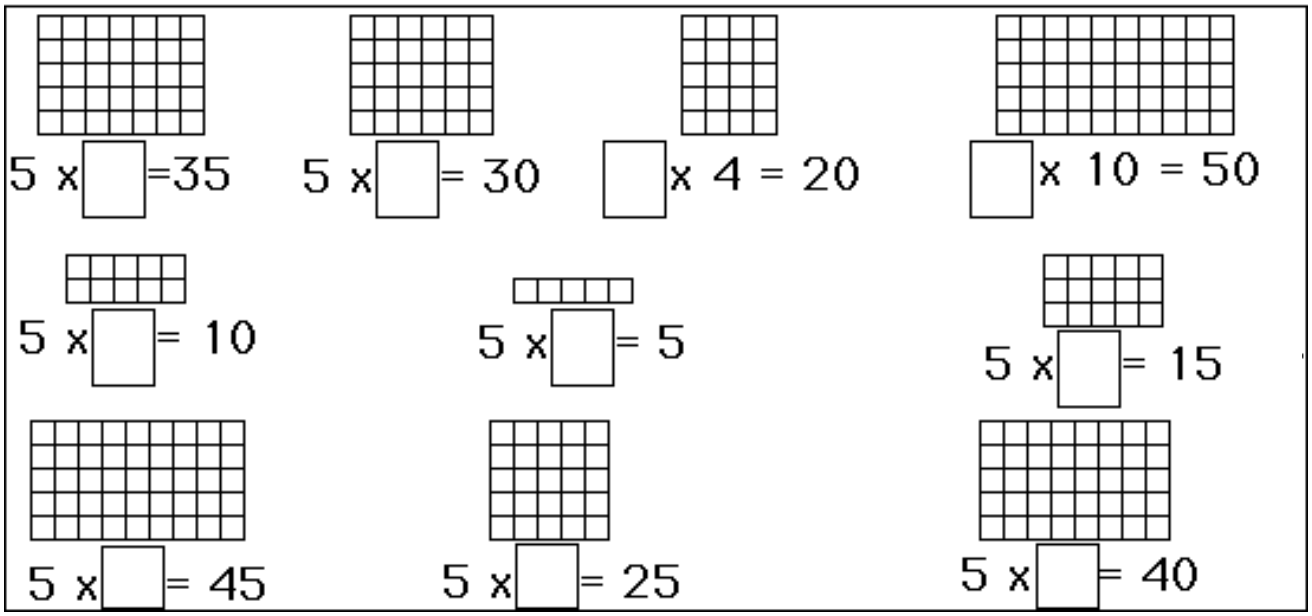
Multiplying By Five, Part 2

Multiply by five:



Fill in the missing multiples of five in the circles:

Fill in the missing numbers:



Practise the 5 times table with Garfield!

Who is eating what? Connect the dots.


35 ▪ ▪ 5 x 3 


55 ▪ ▪ 5 x 8 


15 ▪ ▪ 5 x 6 


40 ▪ ▪ 5 x 11 


45 ▪ ▪ 5 x 9 


30 ▪ ▪ 5 x 7 

Complete:

5 x 2 = ____

5 x 0 = ____

5 x 5 = ____

5 x 10 = ____

5 x 6 = ____

5 x 12 = ____

5 x 1 = ____

5 x 8 = ____

5 x 3 = ____

5 x 7 = ____

Fill in the blanks:

5 x ____ = 55

5 x ____ = 10

5 x ____ = 0

5 x ____ = 20

5 x ____ = 45

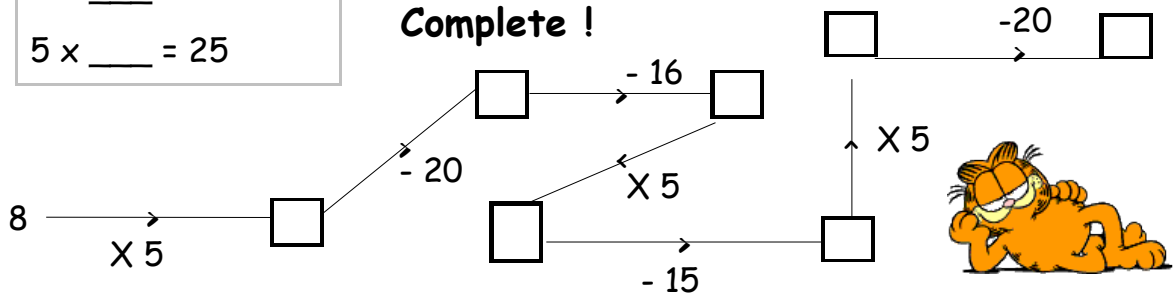
5 x ____ = 25

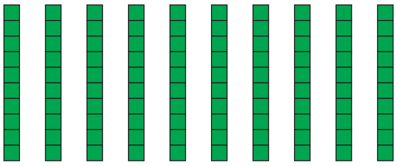
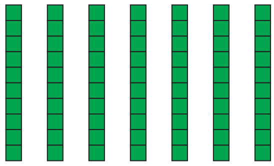
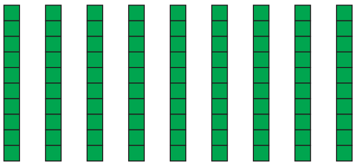
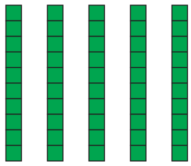
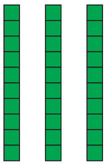
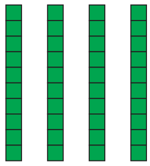
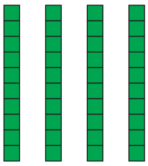
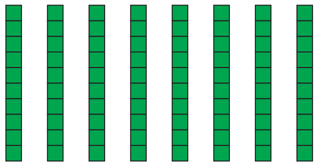
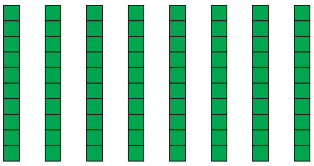
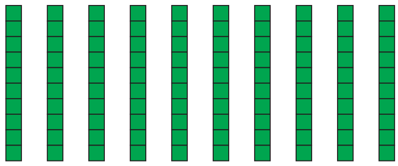
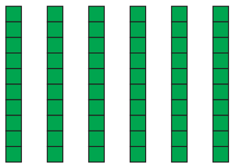
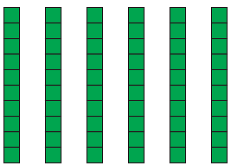
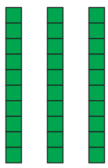
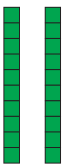
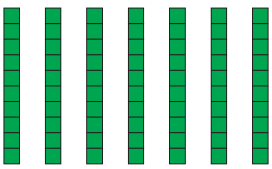
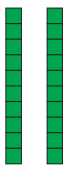
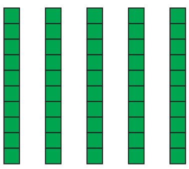
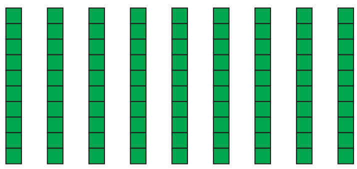
Color the arrows that multiply the number by 5.

3 → 15 5 → 10

6 → 30 7 → 21 9 → 45

Complete !



Mad Maths Minutes	Mad Maths Minutes
10x Table Pictures Set A	10x Table Pictures Set B
 ______	 ______
 ______	 ______
 ______	 ______
 ______	 ______
 ______	 ______
 ______	 ______
 ______	 ______
 ______	 ______
 ______	 ______
 ______	 ______

2x Table Coins (2 x ?)

- Look at each set of pictures. Write the repeated addition and multiplication.

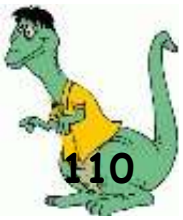
	
2p + 2p + 2p + 2p + 2p + 2p + 2p + 2p + 2p + 2p = 20p	2p x 10 = 20p
	
	
	
	
	
	
	
	

Practise the 10 times table with the Flintstones!

Connect every dino with her egg.

10 x 6

10 x 9

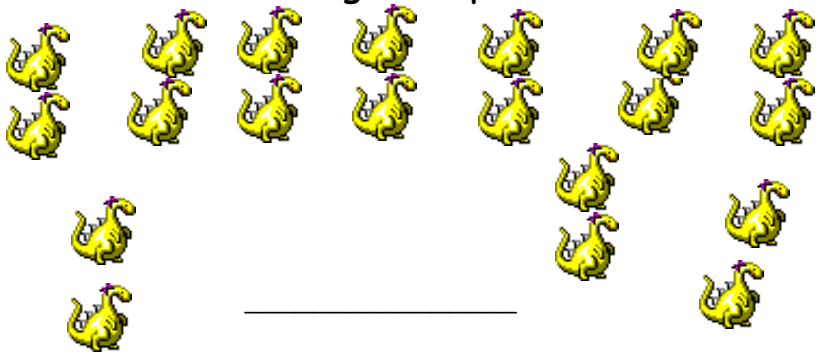


10 x 11

10 x 3

10 x 4

Write the matching multiplication.



_____

Which number is each Flintstone hiding?

10 X  = 70 answer: ____

10 X  = 120 answer: ____

10 X  = 50 answer: ____

Complete:

10 x 6 = ____
10 x 4 = ____
10 x 0 = ____
10 x 1 = ____
10 x 9 = ____
10 x 10 = ____
10 x 8 = ____
10 x 3 = ____
10 x 12 = ____
10 x 2 = ____
10 x 7 = ____
10 x 5 = ____
10 x 11 = ____

Multiplying with 10

Rainbow

10x9	9x10	9x10	10x9	10x9	10x9	10x9	9x10	10x9	10x9
10x10	9x10	9x10	10x10	10x10	9x10	10x10	10x10	10x3	3x10
10x10	9x10	10x9	9x10	10x10	10x10	4x10	4x10	10x1	2x10
10x10	10x9	9x10	10x9	10x4	4x10	1x10	1x10	5x10	10x6
9x10	10x9	10x10	3x10	1x10	2x10	5x10	5x10	7x10	10x8
10x10	10x9	3x10	10x1	6x10	10x5	7x10	10x8	9x10	10x9
9x10	10x9	4x10	2x10	10x6	10x8	9x10	9x10	10x9	10x10
9x10	10x4	10x2	5x10	10x8	9x10	10x10	10x10	10x9	10x10
9x10	4x10	10x1	5x10	10x7	10x9	9x10	10x9	9x10	10x9
9x10	3x10	10x1	6x10	10x7	10x10	10x9	10x9	10x9	9x10

Key:

10 or 20	Orange
30 or 40	Red
50 or 60	Green
70 or 80	Yellow
90 or 100	Blue

If you think you have trained hard enough to beat Batman then speak to your teacher; your enemy awaits!

If you win, then stick your certificate here and write about what you are good at and what you found tricky in the space below

TRAIN TO BEAT HAWK-GIRL!

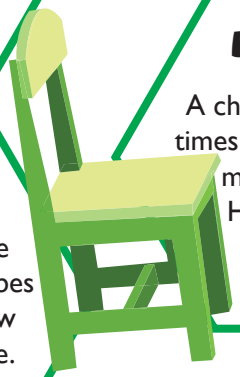
TRY OUT THESE ACTIVITIES WHILE YOU ARE TRAINING; SOME PEOPLE'S LEARNING STYLES ARE DIFFERENT AND THESE MIGHT HELP YOU CRACK IT!

HOT POTATO!

Grab a bean-bag and some friends. Pass the bean-bag around and call out the times table you are practicing. Anyone who is too slow is eliminated until only the winner is left!

LOOK WHO'S TALKING!

Can you do a funny accent? Now's the time to show it off! Go through the times tables in the strangest accent you can think of. Which of your friends is the funniest?



FOUR ON THE FLOOR!

A chair has four legs; can you use your times table knowledge to work out how many chair-legs are in the room? How about finding out the number of wheels on the cars in the car park?

WHOLE OR NOT?

Grab some number cubes and some paper. Chose a random number of cubes (write down how many) and see how many groups of 3 or 4 you can make. Are there any left over? Notice any patterns?

TAKE YOUR CHANCES, ROLL THE DICE!

Get a ten-sided dice and a training partner. Choose a times table to practice and roll the dice. Whatever it lands on you need to multiply!

RAP ATTACK!

So you can sing your 2, 5 and 10 times table, how about you try rapping your 3 and 4 times? Maybe you could even make actions to go along with it.

FASTER THAN A COMPUTER!

Your partner uses a calculator while you use your mind. Who can get to the answer quickest?

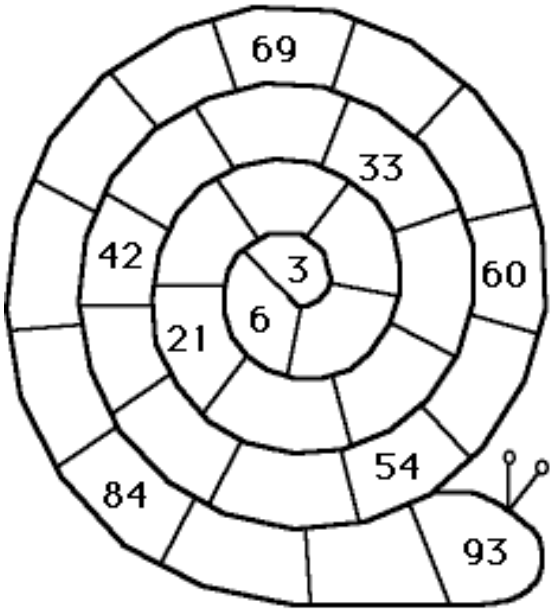
FOOTY FANATICS!

Tired of the same score lines in footy? Change the scoring rules! Every time your team completes a pass, call out the next number from the 3 or 4 times table. If you complete the table you get to add another goal to your score! But beware, so does the other team!

Early Multiplication

Multiplying By Three

Fill in the missing multiples of three in the spiral below:



Color the multiples of 3:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

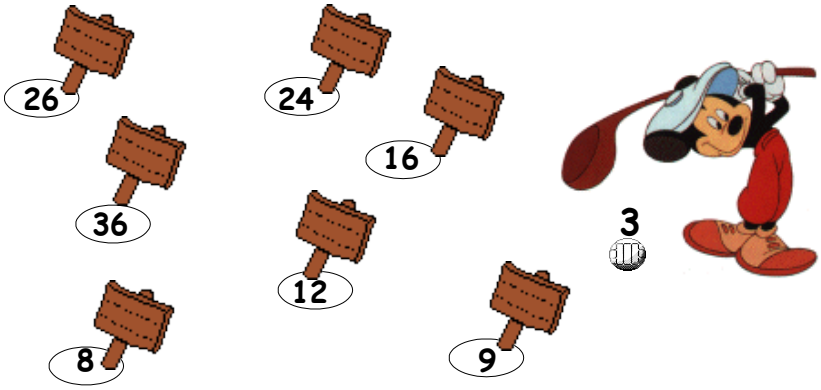
Match the equivalent numbers and formulas:

3 x 0	0	1 x 3	0
3 x 1	12	0 x 3	3 + 3 + 3 + 3
3 x 2	3	2 x 3	3
3 x 3	6	3 x 3	3 + 3
3 x 4	18	4 x 3	3 + 3 + 3
3 x 5	9	5 x 3	3 + 3 + 3 + 3 + 3
3 x 6	15	6 x 3	3 + 3 + 3 + 3 + 3 + 3 + 3
3 x 7	24	10 x 3	3 + 3 + 3 + 3 + 3 + 3
3 x 8	27	7 x 3	3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3
3 x 9	30	8 x 3	3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3
3 x 10	21	9 x 3	3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3

Practise the 3 times table with Mickey!

Who gives Mickey the right answer? Match up with the same color.

Where does Mickey's golf ball end up? He only aims for the products of the 3 times table. Color these holes.



Word Problems

- Mickey receives 3 marbles every week. How many marbles does he have after 6 weeks? _____

- Mickey visits Minnie Mouse 3 times a day. How many visits did he bring in 11 days? _____

Fill in the 3 times tables:

3 x 1	3 x 6	3 x 0
3 x 10	3 x 4	3 x 9
3 x 7	3 x 12	3 x 2
3 x 8	3 x 3	3 x 5

Complete.

3 x ____ = 12

3 x ____ = 0

3 x ____ = 9

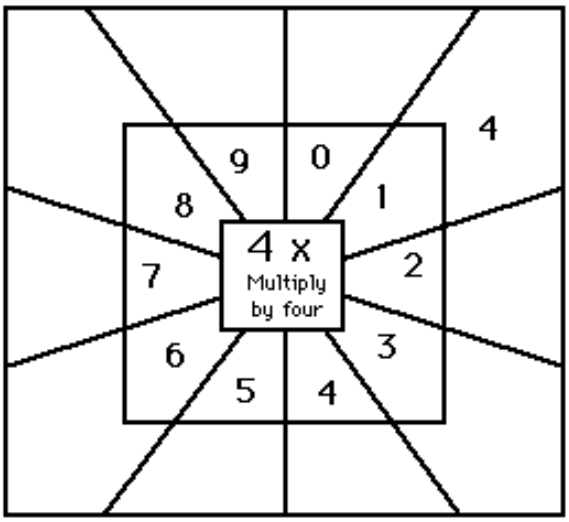
3 x ____ = 21

3 x ____ = 15

Early Multiplication

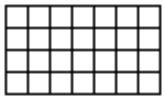
Multiplying By Four, Part 2

Multiply by four:



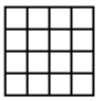
Fill in the missing multiples of four in the circles:

Fill in the missing numbers:

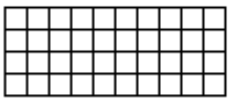


4 x ☐ = 28

4 x ☐ = 24



☐ x 4 = 16

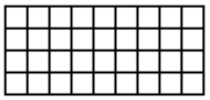


☐ x 10 = 40

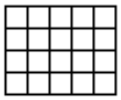
4 x ☐ = 8

4 x ☐ = 4

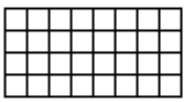
4 x ☐ = 12



4 x ☐ = 36



4 x ☐ = 20



4 x ☐ = 32

Practise the 4 times table with Tweety!

Which gifts belong together? Give them the same color.

Complete:

4 x 6	4 x 10	4 x 4
4 x 1	4 x 12	4 x 9
4 x 7	4 x 3	4 x 8
4 x 7	4 x 3	4 x 8

What number is hidden under the cat paw?

4 X 🐾 = 36

4 x 🐾 = 12

4 x 🐾 = 20

4 x 🐾 = 48

4 x 🐾 = 8

4 x 🐾 = 16

4 x 🐾 = 24

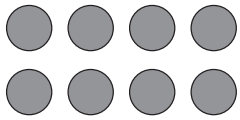
Count by 4s!

0 - ... - ... - ... - ... - ... - ... -

... - ... - ... - ... - ... - ...

Multiplication Arrays (2)

- Draw an array to go with each of the following multiplication calculations. Work out the answer.

 4 x 2 = 8	4 x 3 =	5 x 2 =
3 x 3 =	3 x 5 =	4 x 4 =
7 x 3 =	6 x 3 =	5 x 5 =

- Some of the other arrays can be written using another multiplication calculation. Write them in.

Multiplying with 4 Surfer

4x7	4x7	7x4	4x8	8x4	4x9	3x4	4x9	4x9	10x4
7x4	4x8	8x4	9x4	4x9	5x4	5x4	5x4	4x9	4x9
4x8	7x4	4x10	9x4	4x10	4x10	6x4	4x10	9x4	4x10
4x7	4x10	9x4	4x9	9x4	4x4	4x4	3x4	4x9	4x10
8x4	4x10	10x4	4x9	10x4	4x5	4x9	4x6	4x9	9x4
4x8	10x4	9x4	4x10	4x4	4x3	4x4	4x4		10x4
4x8	10x4	4x10	9x4	4x10	4x9	9x4	4x2		9x4
8x4	8x4	4x10	9x4	10x4	4x10	4x10	9x4	4x2	
4x8	8x4	7x4	4x10	4x10	10x4	4x10	9x4		1x4
4x8	4x8	8x4	4x7	4x7	9x4	4x9	4x9	1x4	4x9

Key:

4 or 8	Black
12 or 16	Yellow
20 or 24	Gray
28 or 32	Blue
36 or 40	Red

*Blank squares are white

Mad Maths Minutes		Mad Maths Minutes	
3x Table Practice Set A		3x Table Practice Set B	
3 x 9 =	7 x 3 =	2 x 3 =	3 x 5 =
3 x 3 =	3 x 1 =	3 x 6 =	3 x 10 =
10 x 3 =	2 x 3 =	3 x 2 =	9 x 3 =
3 x 7 =	3 x 6 =	1 x 3 =	6 x 3 =
3 x 9 =	1 x 3 =	3 x 4 =	7 x 3 =
6 x 3 =	3 x 5 =	5 x 3 =	3 x 1 =
4 x 3 =	3 x 3 =	3 x 8 =	3 x 9 =
2 x 3 =	8 x 3 =	3 x 7 =	3 x 3 =
3 x 10 =	3 x 0 =	3 x 2 =	3 x 6 =
3 x 5 =	4 x 3 =	10 x 3 =	0 x 3 =
3 x 4 =	3 x 7 =	3 x 4 =	8 x 3 =
6 x 3 =	8 x 3 =	3 x 0 =	4 x 3 =
0 x 3 =	3 x 2 =	7 x 3 =	9 x 3 =
3 x 1 =	3 x 8 =	5 x 3 =	3 x 3 =
9 x 3 =	5 x 3 =	3 x 8 =	1 x 3 =

Mad Maths Minutes

4x Table Practice Set A

4 x 2 =	8 x 4 =
3 x 4 =	5 x 4 =
4 x 3 =	4 x 6 =
9 x 4 =	1 x 4 =
4 x 10 =	7 x 4 =
6 x 4 =	9 x 4 =
4 x 9 =	4 x 4 =
4 x 7 =	10 x 4 =
0 x 4 =	1 x 4 =
4 x 6 =	4 x 3 =
4 x 8 =	4 x 9 =
4 x 4 =	4 x 0 =
3 x 4 =	2 x 4 =
5 x 4 =	7 x 4 =
4 x 1 =	4 x 5 =

Mad Maths Minutes

4x Table Practice Set B

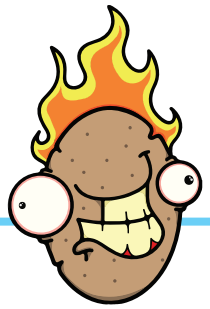
4 x 9 =	4 x 3 =
4 x 8 =	10 x 4 =
5 x 4 =	0 x 4 =
7 x 4 =	4 x 4 =
4 x 7 =	4 x 10 =
4 x 1 =	2 x 4 =
4 x 5 =	3 x 4 =
4 x 4 =	8 x 4 =
1 x 4 =	4 x 2 =
9 x 4 =	4 x 8 =
4 x 5 =	6 x 4 =
6 x 4 =	10 x 4 =
2 x 4 =	8 x 4 =
4 x 7 =	4 x 6 =
4 x 0 =	4 x 4 =

If you think you have trained hard enough to beat Hawk-Girl then speak to your teacher; your enemy awaits!

If you win, then stick your certificate here and write about what you are good at and what you found tricky in the space below

TRAIN TO BEAT THOR

TRY OUT THESE ACTIVITIES WHILE YOU ARE TRAINING; SOME PEOPLE'S LEARNING STYLES ARE DIFFERENT AND THESE MIGHT HELP YOU CRACK IT!



HOT POTATO!

Grab a bean bag and some friends. You know the game so make it a bit trickier by calling out the tables backwards as well! Anyone who is too slow is eliminated until only the winner is left!

FOURS AND EIGHTS ARE MATES!

Get some number cubes and group them into fours. How many groups of four can you make? What is the total? Now try changing that number to groups of eight. What do you notice? What happens when you change it to groups of 2?

7 HEAVEN!

Ask your teacher for a number square. Colour in all the multiples of seven you know (3x7, 2x7, 10x7, etc.) is there a pattern? Can you find our other numbers in the 7 times table? How about you colour in your other times tables. What do you notice?

TIMES TABLE HOP!

Grab a bean bag and throw it as far as you can on the playground. Jump to collect it, counting in 6, 7, or 8 as you go!

SIX TRIX!

Grad some number cubes and group them, into sixes. What is the total of 2 groups? 3 groups? More groups? Try to make as many groups as you can to get the highest total. What happens when you split them into groups of three? How many groups of three are there?

STORY TIME!

Can you make a story about the multiples in your tables? For example: There once was a lonely old fella called 7, he was cold, old and mean. Along came a friend (fourteen) and asked him out to play. "Come on", he said, "it will be fun - we can meet up with crazy 21!"

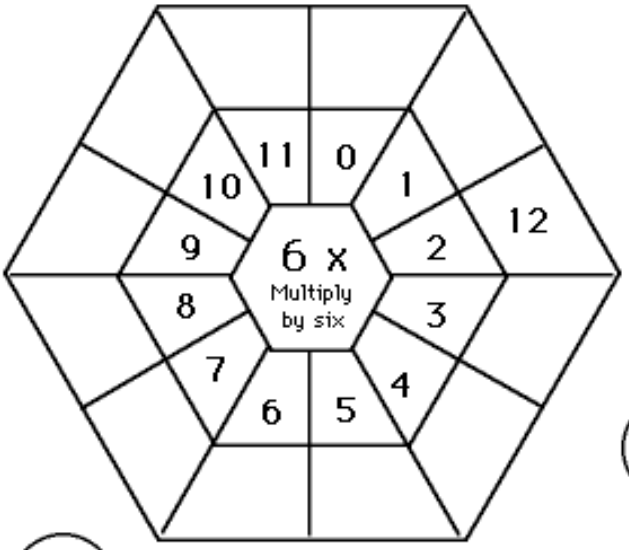
FOOTBALL FANATICS!

Tired of the same old score lines in footy? Change the scoring rules! Every time your team completes a pass, call our the next number from the 6, 7 or 8 times table. If you complete the table you get to add another goal to your score! But beware, so does other teams!

Early Multiplication

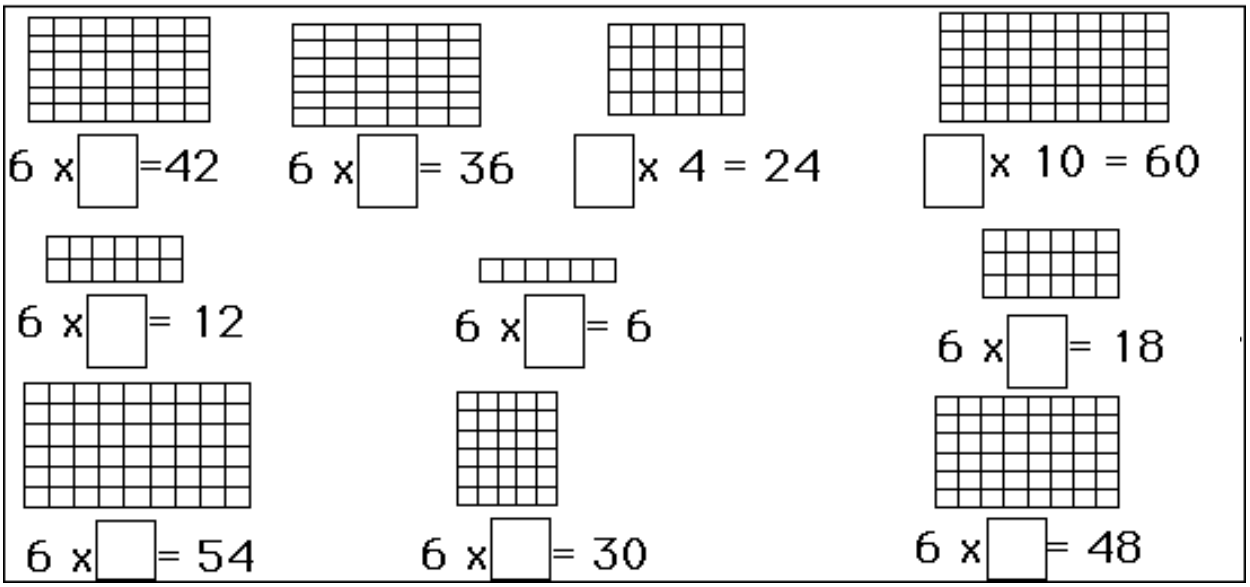
Multiplying By Six, Part 2

Multiply by six:

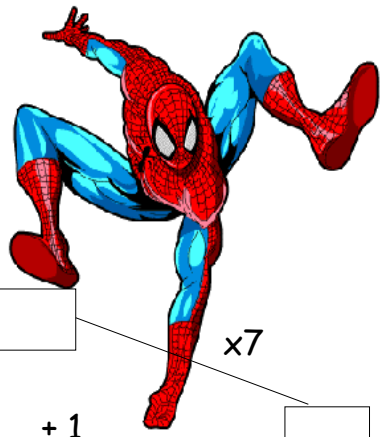


Fill in the missing multiples of six in the circles:

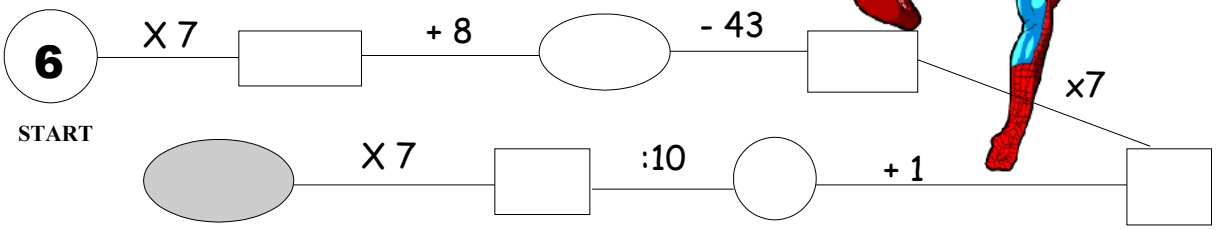
Fill in the missing numbers:



Practise the 7 times table with Spiderman!



Fill in the blanks.



Complete the 7 times table

7 x 4	7 x 12	7 x 9	7 x 5	7 x 2	7 x 10
7 x 8	7 x 1	7 x 11	7 x 3	7 x 9	7 x 3

Find the missing number and make 2 multiplications.

42	?	7

___ x ___ = ___

___ x ___ = ___

?	4	7

___ x ___ = ___

___ x ___ = ___

7	56	?

___ x ___ = ___

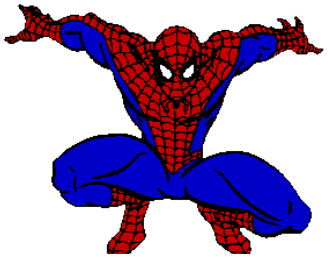
___ x ___ = ___

Complete:

7 x ___ = 35

7 x ___ = 63

7 x ___ = 28



7 x ___ = 84

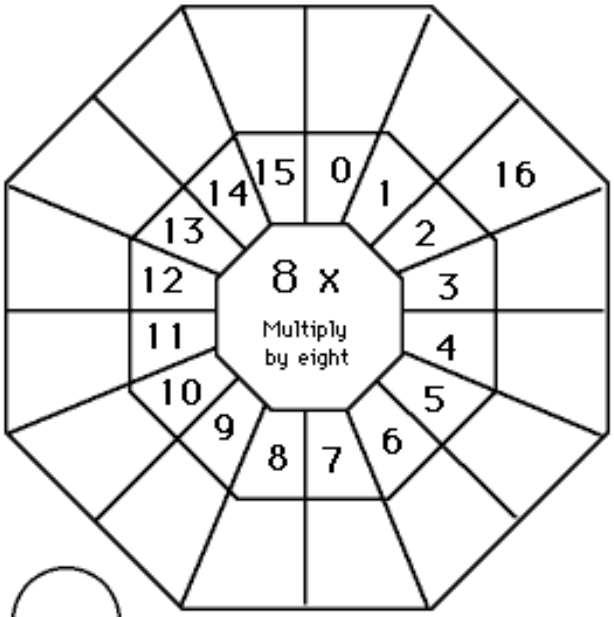
7 x ___ = 21

7 x ___ = 49

Early Multiplication

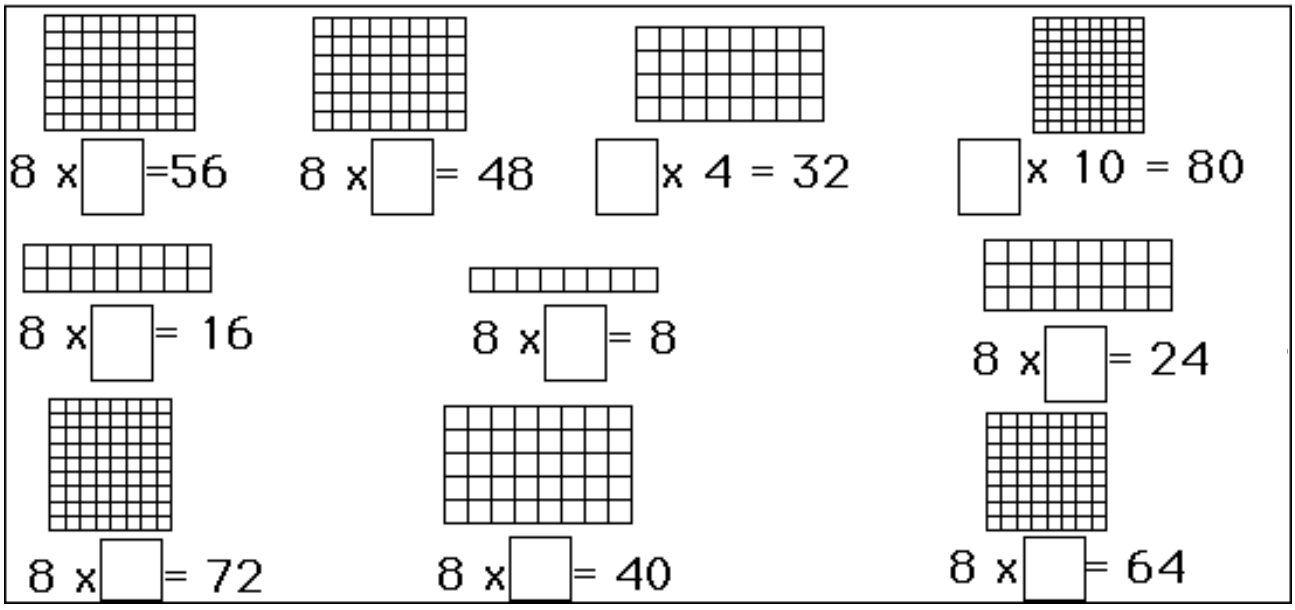
Multiplying By Eight, Part 2

Multiply by eight:



Fill in the missing multiples of eight in the circles:

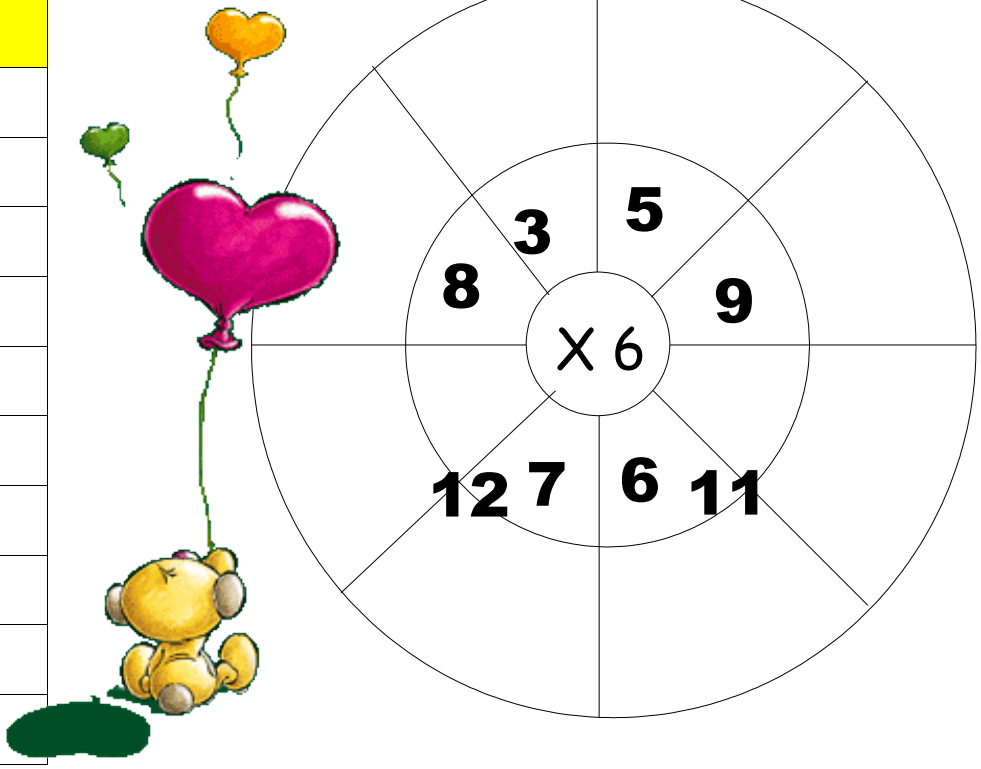
Fill in the missing numbers:



Practise the 6 times table with Pimboli!

Complete the table:

X	6
9	
5	
2	
8	
6	
3	
10	
0	
4	
7	



Write the answers:

6 x 6 = ___	6 x 1 = ___	6 x 11 = ___
6 x 4 = ___	6 x 10 = ___	6 x 9 = ___
6 x 7 = ___	6 x 5 = ___	6 x 2 = ___
6 x 8 = ___	6 x 3 = ___	6 x 12 = ___

Color the products of the 6 times table.

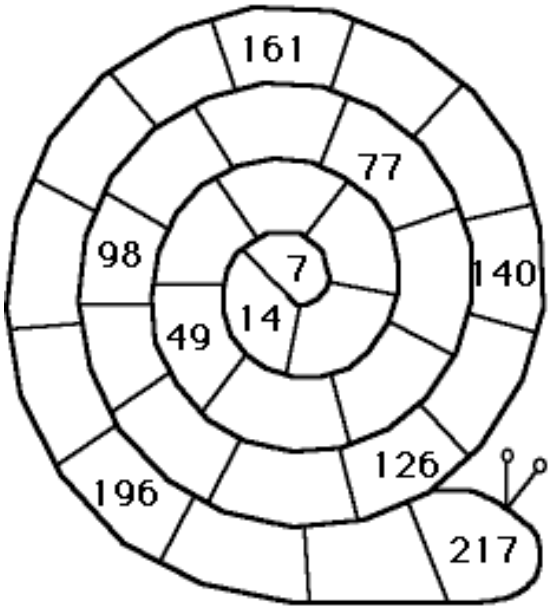
36 9 24 12 60

26 72 16 18 42

Early Multiplication

Multiplying By Seven

Fill in the missing multiples of seven in the spiral below:



Color the multiples of 7:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Match the equivalent numbers and formulas:

7 x 0	21	1 x 7	0
7 x 1	0	0 x 7	7 + 7 + 7 + 7
7 x 2	28	2 x 7	7
7 x 3	7	3 x 7	7 + 7
7 x 4	14	4 x 7	7 + 7 + 7
7 x 5	49	5 x 7	7 + 7 + 7 + 7 + 7
7 x 6	35	6 x 7	7 + 7 + 7 + 7 + 7 + 7 + 7
7 x 7	42	10 x 7	7 + 7 + 7 + 7 + 7 + 7
7 x 8	56	7 x 7	7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7
7 x 9	70	8 x 7	7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7
7 x 10	63	9 x 7	7 + 7 + 7 + 7 + 7 + 7 + 7 + 7

Practise the 8 times table with Winnie the Pooh!

Who gets what ?
Connect the dots.


8 x 9 ▪ ▪ 56 


8 x 7 ▪ ▪ 64 


8 x 8 ▪ ▪ 72 

Vul in:

8 x ___ = 24 8 x ___ = 96 8 x ___ = 16

8 x ___ = 80 8 x ___ = 88 8 x ___ = 48

What number is missing? Make 2 multiplications.

8	32	?

___ x ___ = ___

___ x ___ = ___

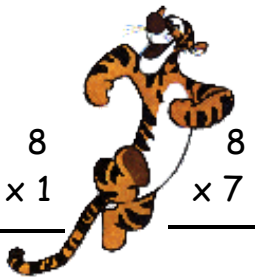
?	5	8

___ x ___ = ___

___ x ___ = ___

Fill in the 8 times table:

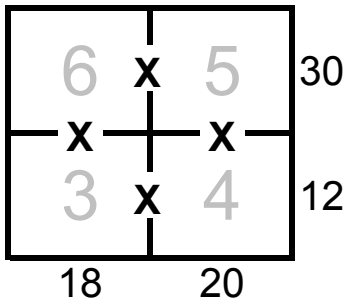
8 x 9 =	8 x 11 =	8 x 0 =	8 x 6 =	8 x 10 =	8 x 5 =
8 x 3 =	8 x 12 =	8 x 1 =	8 x 7 =	8 x 2 =	8 x 8 =



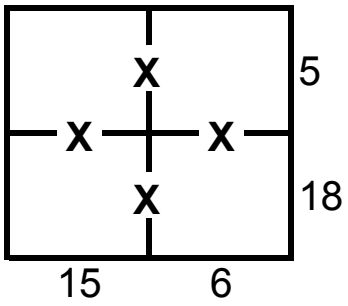
Multi-Squares | *Zeros - Sixes*

Put the correct number in each box so the horizontal ⟺ and vertical ⇳ product are correct.

a



b



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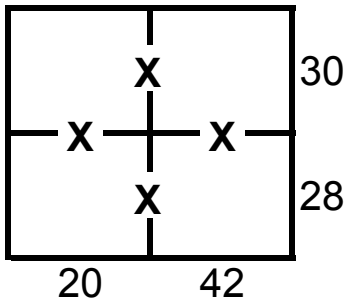

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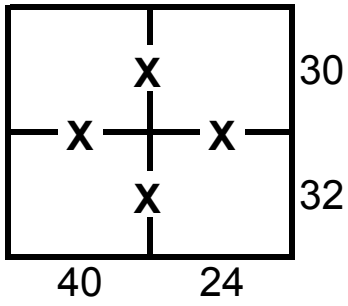

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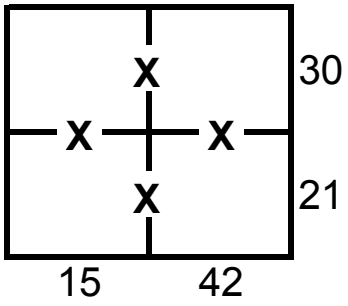

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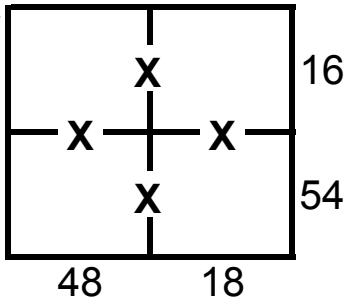

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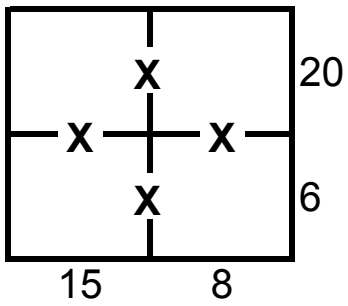

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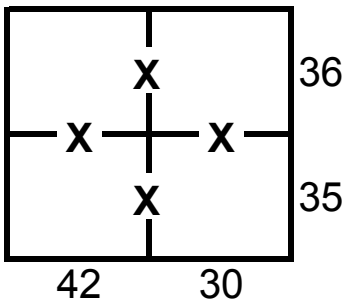
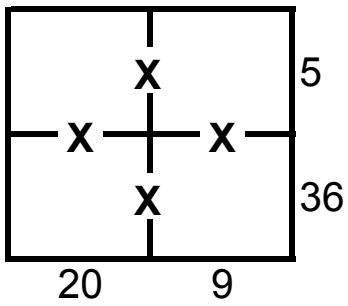


i



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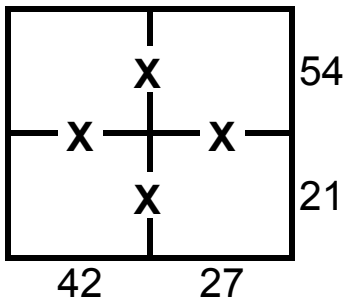

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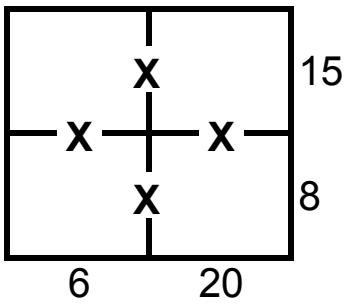

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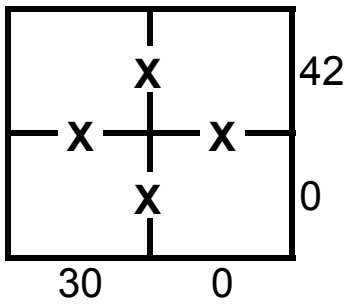

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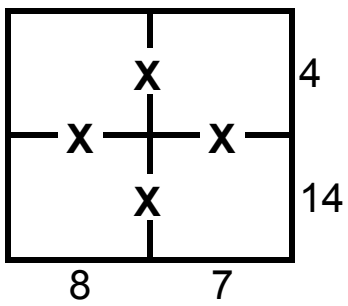

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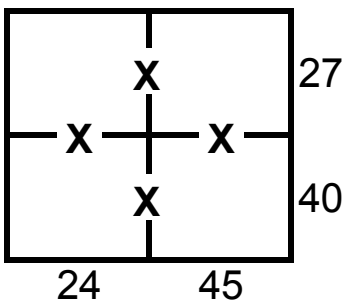

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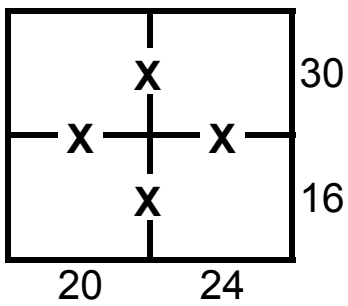


Multi-Squares | *Zeros -Eights*

Put the correct number in each box so the horizontal ⟷ and vertical ⇕ product are correct.

a

8	X	7	56
X		X	
6	X	5	30
48		35	

b

	X		32
X		X	
	X		3
24		4	

c

	X		35
X		X	
	X		18
15		42	

d

	X		54
X		X	
	X		10
45		12	

e

	X		35
X		X	
	X		64
40		56	

f

	X		48
X		X	
	X		20
24		40	

g

	X		64
X		X	
	X		42
56		48	

h

	X		28
X		X	
	X		24
21		32	

i

	X		0
X		X	
	X		3
5		0	

j

	X		10
X		X	
	X		32
8		40	

k

	X		18
X		X	
	X		10
12		15	

l

	X		64
X		X	
	X		54
72		48	

m

	X		40
X		X	
	X		3
5		24	

n

	X		28
X		X	
	X		18
21		24	

o

	X		24
X		X	
	X		35
30		28	

If you think you have trained hard enough to beat Thors' mighty hammer then speak to your teacher.

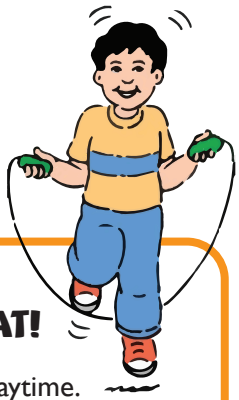
If you win, then stick your certificate here and write about what you are good at and what you found tricky in the space below

TRAIN TO BEAT BLACK WIDOW

TRY OUT THESE ACTIVITIES WHILE YOU ARE TRAINING; SOME PEOPLE'S LEARNING STYLES ARE DIFFERENT AND THESE MIGHT HELP YOU CRACK IT!

TAKE YOUR CHANCES, ROLL THE DICE!

Get a ten-sided dice and a training partner. Choose a times table to practise and roll the dice. Whatever it lands on you need to multiply!



SKIP TO THE BEAT!

Grab a skipping rope at playtime. Can you count through your times table each time you skip? Can you make it to the end without a mistake? How about backwards?

WHOLE OR NOT?

Grab some number cubes and some paper. Choose a random number of cubes (write down how many) and see how many groups of 9, 11 or 12 you can make. Are there any left over? Notice any patterns?

DUELING PARTNERS!

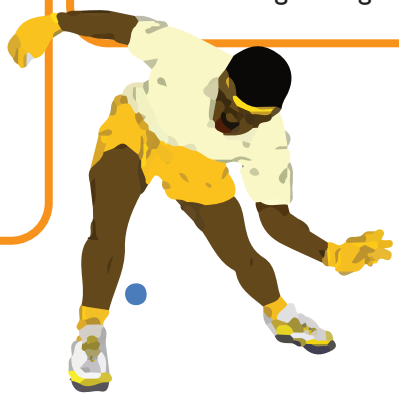
Grab a partner for this next one! You say a times table and they have to answer it. If they get it right then they ask you one in return. The first one to answer wrongly loses a life!

QUICK ON THE DRAW!

Find a partner and face them. Count down from three and when you get to 0 each person has to quickly pull their hands from behind their back and show some of their fingers. The winner is the person who can multiply both amounts of fingers together the fastest!

HANDBALL!

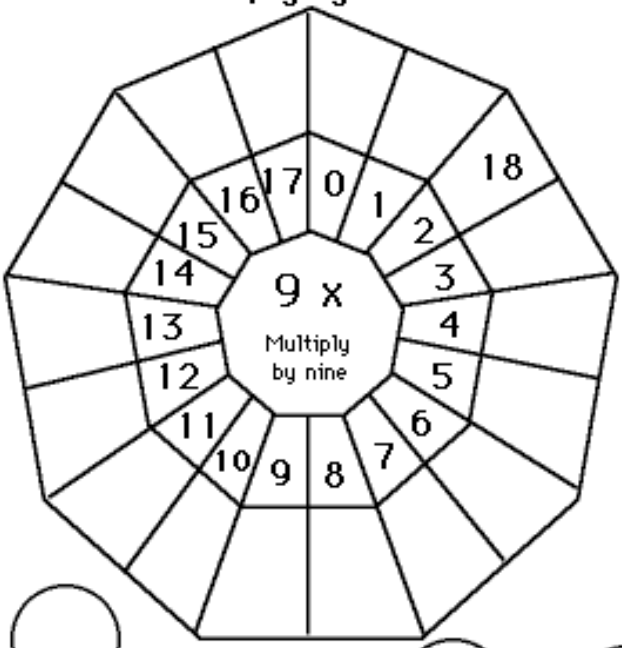
Want a different way to play handball? Count through your times tables as you play; the first person to get to the end gets an extra life!



Early Multiplication

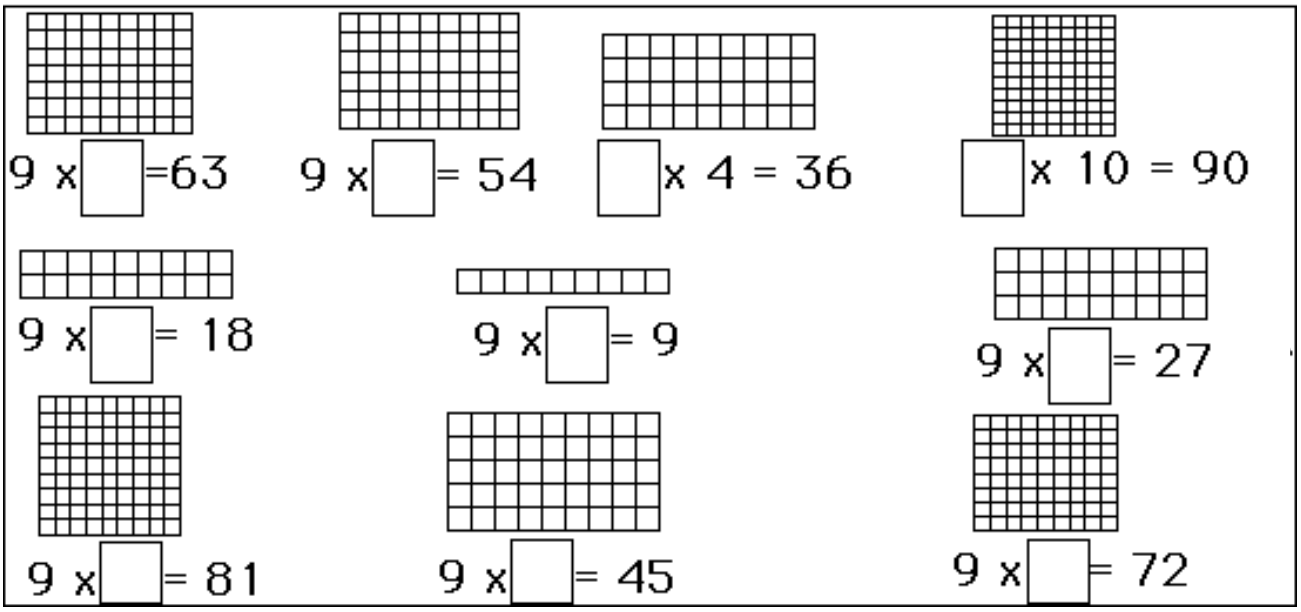
Multiplying By Nine, Part 2

Multiply by nine:

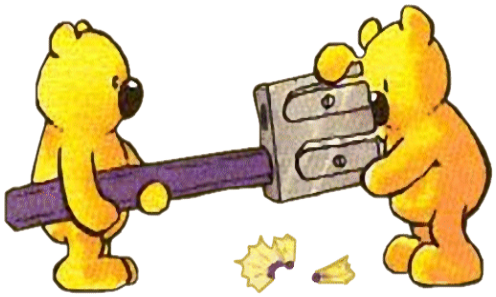


Fill in the missing multiples of nine in the circles:

Fill in the missing numbers:



Practise the 9 times table with Bono!



Word problems!

Bono delivers the mail. His friends Olaf, Flo en Jeep Sheep receive 9 letters each. How many letters does Bono deliver?

Multiplication: _____

Answer: _____

Bono is getting married and places tables for the party. Each table seats 9 friends. There is a total of 8 tables. How many friends will attend the wedding ?

Multiplication: _____

Answer: _____

Fill in:

9 x 9 = ____

9 x 10 = ____

9 x 1 = ____

9 x 7 = ____

9 x 12 = ____

9 x 3 = ____

9 x 4 = ____

9 x 6 = ____

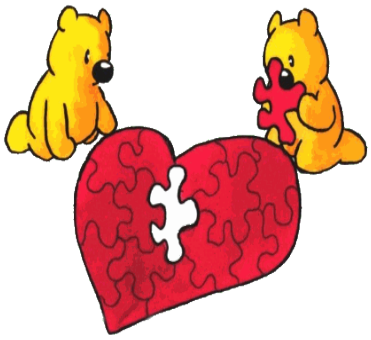
9 x 0 = ____

9 x 5 = ____

9 x 8 = ____

9 x 2 = ____

9 x 11 = ____



Which number is hidden under each jigsaw piece?

9 X ▢ = 18

9 x ▢ = 45

9 x ▢ = 36

9 x ▢ = 63

9 x ▢ = 54

Red Bird- Close Up

1x8	1x3	3x5	2x8	1x4	9x1	8x2	2x10	4x3	1x5	2x10	3x4	1x1	3x6	4x1	4x4	3x2	2x2	4x3
7x2	8x2	6x2	6x1	9x1	2x6	2x1	3x2	2x5	2x1	1x9	1x8	4x3	1x7	1x7	1x4	2x7	1x1	2x2
1x9	7x1	10x1	3x1	5x1	3x3	9x2	1x10	2x3	2x3	4x3	1x4	2x9	10x1	2x1	5x2	2x9	2x8	5x1
5x3	2x2	7x6	7x6	9x6	6x8	1x1	10x2	4x4	6x2	1x4	5x4	3x5	2x1	7x6	7x8	6x8	1x8	4x5
2x10	4x5	7x7	10x6	9x6	5x10	9x5	10x6	5x10	2x8	6x9	5x10	8x6	7x6	7x7	8x6	7x8	3x6	10x2
5x4	5x2	3x1	1x10	2x2	6x8	7x8	9x6	9x6	6x3	8x6	9x5	10x6	7x7	9x1	4x5	2x10	3x1	2x4
2x10	2x4	2x10	3x1						1x9						4x4	2x8	2x2	7x1
3x3	2x9	3x1	7x1						4x4						10x2	4x5	2x4	2x6
1x10	3x2	2x10	3x2				7x8		4x2		6x7				3x4	1x5	9x2	8x2
4x5	2x3	4x3	5x3				7x6		8x1		8x6				3x4	2x5	9x2	4x2
4x5	7x2	1x7	10x2	1x6					3x1					9x1	8x1	2x7	10x1	7x1
2x1	2x8	1x2	3x2	1x10	5x3	4x1	1x6	1x5	10x8	8x10	2x5	2x10	1x2	10x1	3x5	2x2	1x8	3x5
3x4	1x2	6x3	2x2	9x2	10x2	2x10	5x3	8x2	7x9	8x8	9x7	7x9	10x7	1x8	9x2	3x5	5x4	1x6
3x1	2x3	9x2	4x3	10x2	1x7	1x10	10x2	2x7	9x7	8x8	10x9	8x10	10x10	7x10	8x8	2x10	2x8	2x7
1x6	2x7	2x10	3x2	6x6	5x6	5x5	3x9	3x8			9x7	9x10	8x8	1x1	9x2	7x2	1x1	1x4
4x1	4x9	6x5	5x6	6x5	6x4	5x8	3x10	7x5	8x9	7x9	9x9	8x9	6x5	3x7	8x5	4x7	3x4	4x1
4x8	7x5	8x4	7x5	3x10	5x6	8x4	4x10	4x6	8x9	5x6	9x4	3x10	6x4	3x8	10x4	3x8	3x10	7x2
4x9	5x8	8x3	9x4	10x4	8x3	5x6	10x3	4x9	7x3	7x4	7x4	4x6	10x3	9x4	7x4	4x10	5x8	10x3
9x4	10x3	10x4	7x5	8x5	4x7	6x6	3x9	5x7	4x7	3x9	7x4	6x4	4x7	9x3	8x5	7x3	7x3	10x3
6x6	6x4	3x7	4x7	5x8	5x6	6x4	4x7	5x6	8x3	7x5	5x6	7x3	10x4	3x7	9x3	7x5	10x4	4x9

Key:

1-20	Red
21-40	Tan
41-60	Black
61-100	Orange

Multi-Squares | *Zeros - Nines*

Put the correct number in each box so the horizontal ⟺ and vertical ⟺ product are correct.

a

9	X	7	63
X		X	
6	X	8	48
54		56	

b

	X		27
X		X	
	X		8
6		36	

c

	X		48
X		X	
	X		30
40		36	

d

	X		15
X		X	
	X		36
45		12	

e

	X		81
X		X	
	X		24
54		36	

f

	X		63
X		X	
	X		40
35		72	

g

	X		54
X		X	
	X		14
18		42	

h

	X		15
X		X	
	X		35
21		25	

i

	X		27
X		X	
	X		36
54		18	

j

	X		20
X		X	
	X		18
15		24	

k

	X		81
X		X	
	X		40
45		72	

l

	X		4
X		X	
	X		42
7		24	

m

	X		28
X		X	
	X		18
21		24	

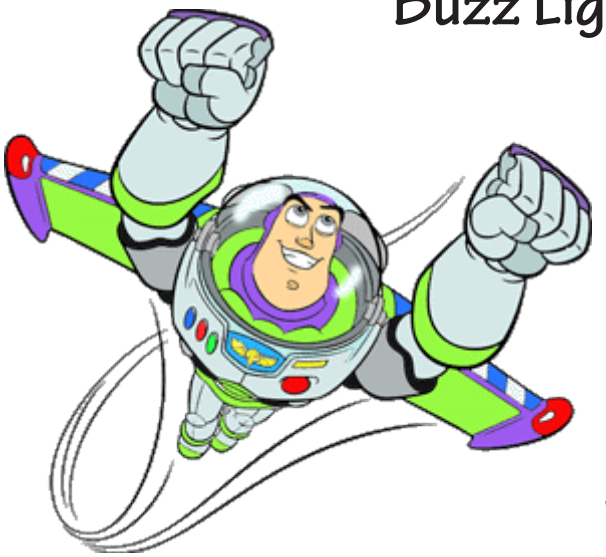
n

	X		25
X		X	
	X		24
20		30	

o

	X		24
X		X	
	X		10
15		16	

Practise the 11 times table with Buzz Lightyear!



Give the matching stars the same color.

11 x 6

11 x 9

80 - 3

11 x 7

11 x 8

11 x 4

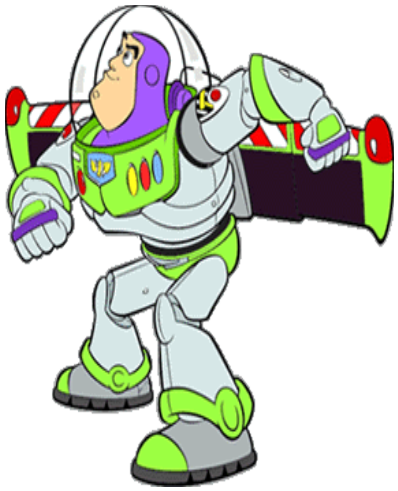
100 - 1

60 + 6

11 x 10

100 + 10

40 + 4



Complete:

11 x 5 =

11 x 1 =

11 x 9 =

11 x 3 =

11 x 11 =

11 x 10 =

11 x 0 =

11 x 6 =

11 x 7 =

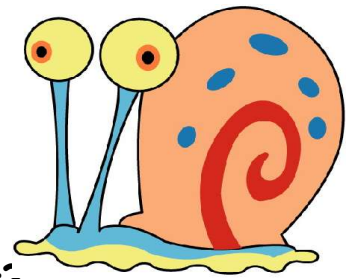
11 x 2 =

11 x 8 =

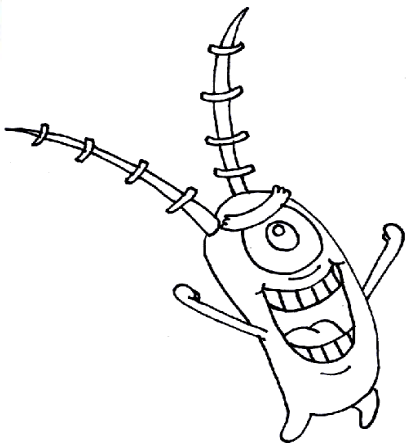
11 x 4 =

11 x 12 =

Practise the 12 times table with Spongebob!



Who eats what?
Give them the same color.

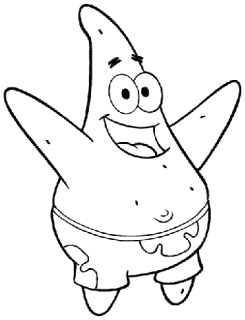


60

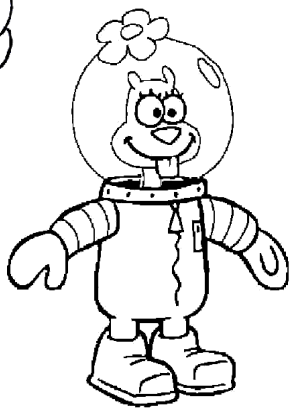
12 x 8

12 x 5

12 x 6



72



96

Complete:

12 x 6 =
12 x 1 =
12 x 9 =
12 x 3 =
12 x 11 =
12 x 10 =
12 x 12 =
12 x 5 =
12 x 7 =
12 x 2 =
12 x 8 =
12 x 4 =
12 x 0 =

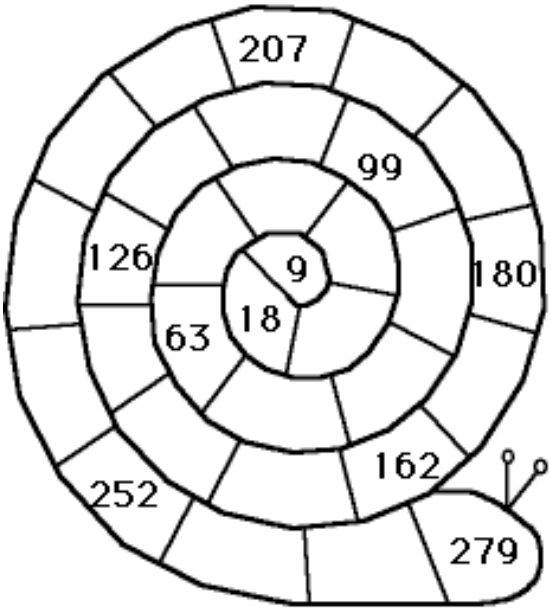
Fill in:

12 x ___ = 24
12 x ___ = 36
12 x ___ = 48
12 x ___ = 144
12 x ___ = 108
12 x ___ = 84
12 x ___ = 132

Early Multiplication

Multiplying By Nine

Fill in the missing multiples of nine in the spiral below:



Color the multiples of 9:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Match the equivalent numbers and formulas:

9 x 0	27	1 x 9	0
9 x 1	0	0 x 9	9 + 9 + 9 + 9
9 x 2	36	2 x 9	9
9 x 3	9	3 x 9	9 + 9
9 x 4	18	4 x 9	9 + 9 + 9
9 x 5	63	5 x 9	9 + 9 + 9 + 9 + 9
9 x 6	45	6 x 9	9 + 9 + 9 + 9 + 9 + 9 + 9
9 x 7	54	10 x 9	9 + 9 + 9 + 9 + 9 + 9
9 x 8	72	7 x 9	9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9
9 x 9	90	8 x 9	9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9
9 x 10	81	9 x 9	9 + 9 + 9 + 9 + 9 + 9 + 9 + 9

Multiplication Drill

11 x 10	11 x 11	11 x 0	11 x 5	11 x 6	11 x 4
11 x 9	11 x 0	11 x 3	11 x 3	11 x 3	11 x 0
11 x 6	11 x 4	11 x 7	11 x 1	11 x 6	11 x 11
11 x 7	11 x 12	11 x 8	11 x 2	11 x 2	11 x 8
11 x 5	11 x 1	11 x 5	11 x 9	11 x 2	11 x 0
11 x 1	11 x 12	11 x 6	11 x 5	11 x 1	11 x 9
11 x 4	11 x 4	11 x 7	11 x 11	11 x 10	11 x 9
11 x 2	11 x 3	11 x 11	11 x 8	11 x 12	11 x 7
11 x 1	11 x 0	11 x 10	11 x 7	11 x 8	11 x 2
11 x 9	11 x 6	11 x 5	11 x 10	11 x 3	11 x 10

Multiplication Drill

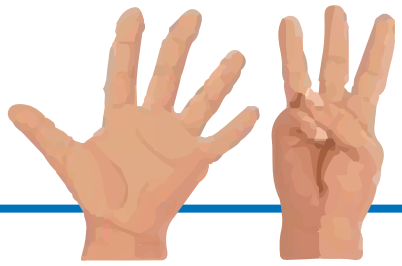
12 x 1	12 x 12	12 x 6	12 x 0	12 x 6	12 x 1
12 x 11	12 x 10	12 x 4	12 x 11	12 x 4	12 x 6
12 x 2	12 x 5	12 x 8	12 x 3	12 x 7	12 x 2
12 x 10	12 x 7	12 x 7	12 x 6	12 x 11	12 x 7
12 x 5	12 x 0	12 x 4	12 x 9	12 x 3	12 x 3
12 x 0	12 x 2	12 x 9	12 x 12	12 x 8	12 x 1
12 x 5	12 x 8	12 x 7	12 x 1	12 x 9	12 x 10
12 x 3	12 x 5	12 x 8	12 x 12	12 x 2	12 x 6
12 x 8	12 x 9	12 x 5	12 x 4	12 x 4	12 x 2
12 x 12	12 x 10	12 x 0	12 x 1	12 x 11	12 x 3

If you think you have trained hard enough to overcome the baffling Black Widow then speak to your teacher.

If you win, then stick your certificate here and write about what you are good at and what you found tricky in the space below

TRAIN TO BEAT SUPERMAN

TRY OUT THESE ACTIVITIES WHILE YOU ARE TRAINING; SOME PEOPLE'S LEARNING STYLES ARE DIFFERENT AND THESE MIGHT HELP YOU CRACK IT!



QUICK ON THE DRAW!

Find a partnet and face them. Count down from three and when you get to 0 each person has to quickly pull their hands from behind their back and show some of their fingers. The winner is the person who can multiply both amounts of fingers together the fastest!

SING UP!

Think of your favourite song. Got it? Now use the tune to create a song about the times table you are training for. Share it with your friends and see if you can help them too!

FASTER THAN A COMPUTER!

This time with division! Choose a division sum: your partner uses a calculator while you use your mind. Who can get to the answer quickest?

REVERSE REVERSE!

You should know your times tables by now; how about you write out a division table? E.g.

3 ÷ 1 = 3

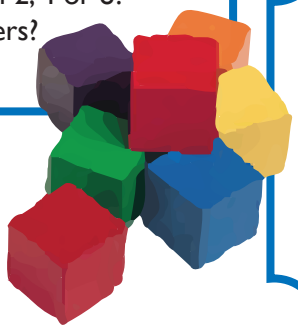
6 ÷ 2 = 3

HOT POTATO!

Grab a bean-bag and some friends. You know the game so make it a bit trickier by practicing your division! One person calls out a division sum and passes the potato onto the next person; if they are too slow then they are eliminated!

BREAK DOWN!

Grab some number cubes, as many as you like. How many are there? Can you break them down into equal groups of 3, 6, 9 or 12? What do you notice? How about groups of 2, 4 or 8? Are there any left overs?



LOOK WHO'S TALKING!

Can you do a funny accent? Now's the time to show it off! Go through the division times tables in the strangest accent you can think of. Which of your friends is the funniest?

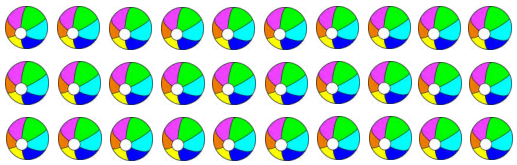
Division Groups

Total number of stars = ____

Q. No	Number of stars in each group	Number of groups	Left over
1	4		
2	7		
3	5		
4	11		
5	8		
6	12		
7	10		
8	14		
9	9		
10	15		

Division Groups

1) Divide into groups of 8:



a) How many groups of 8 can you form?

b) How many items left over?

2) Divide into groups of 10:

a) How many groups of 10 can you form?

b) How many items left over?

3) Divide into groups of 3:

a) How many groups of 3 can you form?

b) How many items left over?

4) Divide into groups of 6:

a) How many groups of 6 can you form?

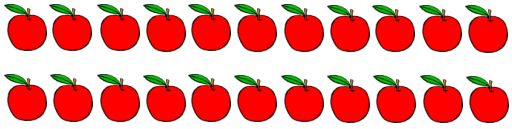
b) How many items left over?

5) Divide into groups of 5:

a) How many groups of 5 can you form?

b) How many items left over?

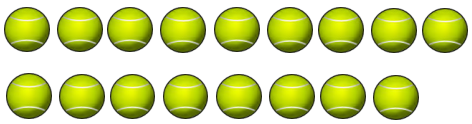
6) Divide into groups of 7:



a) How many groups of 7 can you form?

b) How many items left over?

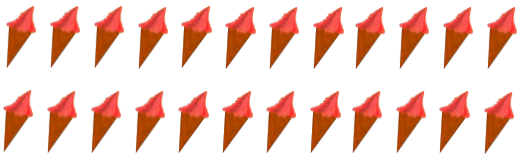
7) Divide into groups of 2:



a) How many groups of 2 can you form?

b) How many items left over?

8) Divide into groups of 9:



a) How many groups of 9 can you form?

b) How many items left over?

In-Out Boxes - Division

1)

IN	OUT
	2
	5
	7
40	
50	

Rule: Divide by 5

2)

IN	OUT
	1
	2
	5
120	
144	

Rule: Divide by 12

3)

IN	OUT
	3
	6
	8
63	
77	

Rule: Divide by 7

4)

IN	OUT
	1
	3
	4
24	
30	

Rule: Divide by 3

5)

IN				60	72
OUT	4	5	7		

Rule: Divide by 6

6)

IN				81	108
OUT	0	3	7		

Rule: Divide by 9

7)

IN					16	18	20	22
OUT	2	3	5	6				

Rule: Divide by 2

Division Times Table - 4,6,8

24 ÷ 8 = ____ (1)	32 ÷ 4 = ____ (11)	4 ÷ 4 = ____ (21)
40 ÷ 4 = ____ (2)	30 ÷ 6 = ____ (12)	18 ÷ 6 = ____ (22)
12 ÷ 4 = ____ (3)	56 ÷ 8 = ____ (13)	12 ÷ 4 = ____ (23)
30 ÷ 6 = ____ (4)	48 ÷ 8 = ____ (14)	24 ÷ 4 = ____ (24)
20 ÷ 4 = ____ (5)	40 ÷ 8 = ____ (15)	48 ÷ 8 = ____ (25)
32 ÷ 8 = ____ (6)	32 ÷ 4 = ____ (16)	64 ÷ 8 = ____ (26)
16 ÷ 8 = ____ (7)	12 ÷ 6 = ____ (17)	18 ÷ 6 = ____ (27)
48 ÷ 8 = ____ (8)	32 ÷ 8 = ____ (18)	16 ÷ 8 = ____ (28)
32 ÷ 8 = ____ (9)	64 ÷ 8 = ____ (19)	36 ÷ 4 = ____ (29)
8 ÷ 4 = ____ (10)	60 ÷ 6 = ____ (20)	4 ÷ 4 = ____ (30)

Yellow Bird- Close Up

54÷9	42÷7	42÷7	40÷8	54÷9	45÷9	50÷10	40÷8	60÷10	36÷6	35÷7	45÷9	60÷10	10÷2	30÷6	12÷2	18÷3	15÷3	50÷10
42÷7	40÷8	48÷8	48÷8	54÷9	5÷1	5÷1	6÷1	10÷5	14÷7	30÷5	18÷3	12÷2	18÷3	30÷5	10÷2	45÷9	42÷7	15÷3
15÷3	60÷10	20÷4	42÷7	45÷9	35÷7	36÷6	10÷2	40÷8	5÷5	4÷2	12÷2	35÷7	5÷1	25÷5	25÷5	18÷3	5÷1	20÷4
6÷1	30÷5	54÷9	20÷4	50÷10	12÷2	30÷5	10÷2	36÷6	8÷8	40÷8	36÷6	30÷6	18÷3	25÷5	48÷8	50÷10	30÷6	20÷4
6÷1	48÷8	48÷8	36÷6	42÷7	30÷5	36÷6	40÷8	30÷5	24÷4	18÷3	36÷6	20÷4	25÷5	60÷10	20÷4	15÷3	24÷4	18÷3
15÷3	15÷3	60÷10	6÷2	12÷3	36÷6	24÷4	60÷10	15÷3	48÷8	30÷6	18÷3	5÷1	50÷10	30÷10	12÷3	35÷7	45÷9	48÷8
5÷1	25÷5	45÷9	6÷2	30÷10	40÷10	28÷7	5÷1	10÷2	48÷8	6÷1	12÷2	27÷9	30÷10	3÷1	18÷6	45÷9	15÷3	35÷7
24÷4	54÷9	10÷2	24÷4	40÷8	27÷9	24÷6	6÷2	6÷2	30÷6	20÷5	18÷6	16÷4	30÷10	40÷8	45÷9	15÷3	18÷3	54÷9
30÷6	5÷1	25÷5					16÷4	3÷1	42÷7	9÷3	9÷3				40÷8	35÷7	36÷6	18÷3
20÷4	42÷7	60÷10				20÷10		36÷6	48÷8	50÷10		4÷2			36÷6	5÷1	36÷6	20÷4
20÷4	48÷8	5÷1						35÷7	6÷1	48÷8					60÷10	40÷8	54÷9	25÷5
40÷8	30÷5	12÷2	10÷2				60÷10	40÷8	40÷8	6÷1	6÷1			10÷2	6÷1	36÷6	10÷2	18÷3
12÷2	15÷3	15÷3	45÷9	35÷7	42÷7	45÷9	6÷1	30÷10	27÷9	24÷6	12÷4	8÷2	4÷1	27÷9	3÷1	24÷4	5÷1	30÷6
48÷8	30÷5	45÷9	15÷3	15÷3	5÷1	25÷5	30÷6	20÷5	30÷10	40÷10	12÷3	21÷7	6÷2	12÷4	15÷3	6÷1	40÷8	45÷9
5÷1	35÷7	20÷4	35÷7	20÷4	15÷3	12÷2	60÷10	24÷8	4÷1	21÷7	16÷4	12÷4	6÷1	48÷8	12÷2	18÷3	25÷5	18÷3
54÷9	60÷10	25÷5	50÷10	15÷3	48÷8	50÷10	5÷1	30÷10	40÷10	36÷6	48÷8	60÷10	42÷7	30÷6	10÷2	5÷1	35÷7	60÷10
18÷3	45÷9	20÷4	60÷10	10÷2	10÷2	20÷4	30÷6	48÷8	24÷4	30÷5	15÷3	20÷4	36÷6	30÷5	48÷8	18÷3	42÷7	48÷8
25÷5	54÷9	24÷4	30÷6	5÷1	5÷1	24÷4	20÷4	30÷5	35÷7	36÷6	18÷3	24÷4	40÷8	30÷5	50÷10	15÷3	30÷5	45÷9
40÷8	6÷1	48÷8	50÷10	35÷7	10÷2	25÷5	45÷9	48÷8	42÷7	24÷4	36÷6	25÷5	10÷2	54÷9	30÷6	15÷3	15÷3	48÷8
36÷6	50÷10	60÷10	6÷1	25÷5	54÷9	35÷7	20÷4	24÷4	18÷3	18÷3	25÷5	5÷1	10÷2	36÷6	20÷4	36÷6	36÷6	50÷10

Key:

1,2	Black
3,4	Red-Orange
5,6	Yellow

*Blank squares are white

Division Times Table - 6,7,8,9

45 ÷ 9 = ____ (1)	6 ÷ 6 = ____ (11)	72 ÷ 9 = ____ (21)
21 ÷ 7 = ____ (2)	42 ÷ 7 = ____ (12)	54 ÷ 9 = ____ (22)
60 ÷ 6 = ____ (3)	12 ÷ 6 = ____ (13)	30 ÷ 6 = ____ (23)
63 ÷ 7 = ____ (4)	45 ÷ 9 = ____ (14)	81 ÷ 9 = ____ (24)
32 ÷ 8 = ____ (5)	18 ÷ 6 = ____ (15)	40 ÷ 8 = ____ (25)
72 ÷ 9 = ____ (6)	40 ÷ 8 = ____ (16)	63 ÷ 7 = ____ (26)
42 ÷ 6 = ____ (7)	48 ÷ 6 = ____ (17)	49 ÷ 7 = ____ (27)
16 ÷ 8 = ____ (8)	35 ÷ 7 = ____ (18)	72 ÷ 9 = ____ (28)
32 ÷ 8 = ____ (9)	24 ÷ 8 = ____ (19)	24 ÷ 6 = ____ (29)
56 ÷ 8 = ____ (10)	81 ÷ 9 = ____ (20)	70 ÷ 7 = ____ (30)

Division and Multiplication Mix - 11

11 x 2 = ____ (1)	2 x 11 = ____ (11)	44 ÷ 11 = ____ (21)
11 x 1 = ____ (2)	11 x 5 = ____ (12)	3 x 11 = ____ (22)
11 x 7 = ____ (3)	110 ÷ 11 = ____ (13)	11 x 0 = ____ (23)
22 ÷ 11 = ____ (4)	11 x 4 = ____ (14)	11 x 8 = ____ (24)
11 x 2 = ____ (5)	11 x 4 = ____ (15)	110 ÷ 11 = ____ (25)
99 ÷ 11 = ____ (6)	33 ÷ 11 = ____ (16)	11 ÷ 11 = ____ (26)
11 x 2 = ____ (7)	44 ÷ 11 = ____ (17)	22 ÷ 11 = ____ (27)
55 ÷ 11 = ____ (8)	110 ÷ 11 = ____ (18)	8 x 11 = ____ (28)
77 ÷ 11 = ____ (9)	88 ÷ 11 = ____ (19)	22 ÷ 11 = ____ (29)
11 ÷ 11 = ____ (10)	11 x 7 = ____ (20)	9 x 11 = ____ (30)

Division and Multiplication Mix - 12

48 ÷ 12 = ____ (1)	108 ÷ 12 = ____ (11)	36 ÷ 12 = ____ (21)
120 ÷ 12 = ____ (2)	72 ÷ 12 = ____ (12)	12 x 10 = ____ (22)
9 x 12 = ____ (3)	120 ÷ 12 = ____ (13)	24 ÷ 12 = ____ (23)
12 x 3 = ____ (4)	48 ÷ 12 = ____ (14)	108 ÷ 12 = ____ (24)
12 x 7 = ____ (5)	48 ÷ 12 = ____ (15)	108 ÷ 12 = ____ (25)
12 ÷ 12 = ____ (6)	12 x 2 = ____ (16)	12 ÷ 12 = ____ (26)
12 x 8 = ____ (7)	5 x 12 = ____ (17)	5 x 12 = ____ (27)
48 ÷ 12 = ____ (8)	60 ÷ 12 = ____ (18)	36 ÷ 12 = ____ (28)
12 x 9 = ____ (9)	120 ÷ 12 = ____ (19)	108 ÷ 12 = ____ (29)
2 x 12 = ____ (10)	12 ÷ 12 = ____ (20)	2 x 12 = ____ (30)

If you think you have trained hard enough to overcome the amazing Superman then speak to your teacher… he is waiting…

If you win, then stick your certificate here and reflect on any areas you are strong at or may need to work on before you move forward.

TRAIN TO BEAT CATWOMAN

ARGH! KNOWING YOUR PLACE VALUE MULTIPLICATION AND DIVISION IS TOUGH! NO MATTER HOW MANY TIMES I TRY, CATWOMAN ALWAYS MANAGES TO DEFEAT ME... IF I GIVE YOU SOME TIPS AND YOUR TEACHER HELPS YOU TO UNDERSTAND, MAYBE WE CAN FINALLY PREVAIL!

HOW TO MULTIPLY DECIMALS

1. Multiply normally, ignoring the decimal points.
2. **Then** put the decimal point in the answer - it will have as many decimal places as the two original numbers combined.

Example : **Multiply** 0.03 by 1.1

start with : 0.03 × 1.1
multiply without decimal points : 3 × 11 = 33
0.03 has **2 decimal places,**
and 1.1 has **1 decimal place,**
so the answer has **3 decimal places:** 0.033

DIVIDING A DECIMAL NUMBER BY A WHOLE NUMBER

1. Use Division or Long Division (ignoring the decimal point)
2. **Then** put the decimal point in the same spot as the dividend (the number being divided)

Example: Divide 9.1 by 7

Ignore the decimal point and use Long Division :

$$\begin{array}{r} 13 \\ 7\overline{)91} \\ \underline{7} \\ 21 \end{array}$$

→

Put the decimal point in the answer directly above the decimal point in the dividend :

$$\begin{array}{r} 1.3 \\ 7\overline{)9.1} \end{array}$$

→

The answer is :

1.3

DIVIDING BY DECIMAL NUMBER

1. Change the number we are dividing by to a whole number first, by **shifting the decimal point of both numbers** to the right:
2. It is safe to do this if we remember to shift the decimal point of both numbers the same number of places.

Example: divide 6.4 by 0.4

Move 1

6.4 → **64**

0.4 → **4**

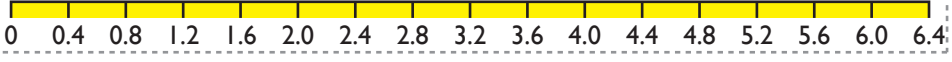
6.4/0.4 is exactly the same as 64/4, as we **moved the decimal point of both numbers**. Now we can calculate:

64 / 4 = 16

So the answer is:

6.4 / 0.4 = 16

Are there really 16 lots of 0.4 in 6.4? Let's see:



One minute brain training.

Column A			Column B			Column C			
4	x10	=	4	x100	=	4	x1000	=	6
9	x10	=	8	x100	=	1	x1000	=	10
7	x10	=	6	x100	=	7	x1000	=	17
2	x10	=	9	x100	=	8	x1000	=	29
6	x10	=	7	x100	=	6	x1000	=	2
8	x10	=	5	x100	=	9	x1000	=	28
1	x10	=	3	x100	=	5	x1000	=	9
12	x10	=	15	x100	=	13	x1000	=	19
24	x10	=	27	x100	=	36	x1000	=	93
56	x10	=	63	x100	=	71	x1000	=	70
73	x10	=	92	x100	=	90	x1000	=	712
82	x10	=	11	x100	=	16	x1000	=	201
132	x10	=	121	x100	=	144	x1000	=	333
27	x10	=	17	x100	=	150	x1000	=	76
49	x10	=	32	x100	=	83	x1000	=	46
379	x10	=	124	x100	=	241	x1000	=	87
33	x10	=	45	x100	=	78	x1000	=	45
732	x10	=	320	x100	=	57	x1000	=	473
444	x10	=	560	x100	=	820	x1000	=	74
80	x10	=	75	x100	=	62	x1000	=	165

Column D					
6	x100	=	76	x1000	=
10	x1000	=	46	x10	=
17	x10	=	87	x100	=
29	x100	=	45	x1000	=
2	x1000	=	473	x10	=
28	x10	=	74	x100	=
9	x100	=	165	x1000	=
19	x1000	=			
93	x10	=			
70	x100	=			
712	x1000	=			
201	x10	=			
333	x100	=			

Multiplying by 10, 100 and 1,000

Complete the table to show how you're using **multiplication to convert the following measurements** (the first one has been done for you):

Original measurement	**Convert to**	**Multiply by**	**Answer**
2 metres	**centimetres**	**100**	**200 cm**
15 kilograms	grams		
75 centimetres	millimetres		
4 litres	millilitres		
3.5 metres	centimetres		
12.5 kilometres	metres		
8.5 litres	millilitres		
1.5 kilograms	grams		
0.4 metres	centimetres		
2.5 centimetres	millimetres		
2 metres	millimetres		
0.75 kilograms	grams		
3 tonnes	kilograms		

Now check your answers - as well as checking the answer column, check that you've multiplied by the correct number.

Dividing by Multiples of Negative Powers of Ten (A)

Single-Digit Facts

14	÷	7	=		16	÷	2	=
14	÷	0.7	=		16	÷	0.2	=
14	÷	0.07	=		16	÷	0.02	=
14	÷	0.007	=		16	÷	0.002	=
14	÷	0.0007	=		16	÷	0.0002	=
18	÷	6	=		63	÷	9	=
18	÷	0.6	=		63	÷	0.9	=
18	÷	0.06	=		63	÷	0.09	=
18	÷	0.006	=		63	÷	0.009	=
18	÷	0.0006	=		63	÷	0.0009	=
9	÷	1	=		12	÷	3	=
9	÷	0.1	=		12	÷	0.3	=
9	÷	0.01	=		12	÷	0.03	=
9	÷	0.001	=		12	÷	0.003	=
9	÷	0.0001	=		12	÷	0.0003	=
42	÷	7	=		35	÷	7	=
42	÷	0.7	=		35	÷	0.7	=
42	÷	0.07	=		35	÷	0.07	=
42	÷	0.007	=		35	÷	0.007	=
42	÷	0.0007	=		35	÷	0.0007	=
2	÷	2	=		936	÷	8	=
2	÷	0.2	=		936	÷	0.8	=
2	÷	0.02	=		936	÷	0.08	=
2	÷	0.002	=		936	÷	0.008	=
2	÷	0.0002	=		936	÷	0.0008	=

Challenge

Dividing by Multiples of Positive Powers of Ten (B)

Single-Digit Facts

8	÷	2 =	6	÷	2 =
8	÷	20 =	6	÷	20 =
8	÷	200 =	6	÷	200 =
8	÷	2,000 =	6	÷	2,000 =
8	÷	20,000 =	6	÷	20,000 =
48	÷	6 =	8	÷	4 =
48	÷	60 =	8	÷	40 =
48	÷	600 =	8	÷	400 =
48	÷	6,000 =	8	÷	4,000 =
48	÷	60,000 =	8	÷	40,000 =
18	÷	3 =	10	÷	2 =
18	÷	30 =	10	÷	20 =
18	÷	300 =	10	÷	200 =
18	÷	3,000 =	10	÷	2,000 =
18	÷	30,000 =	10	÷	20,000 =
8	÷	8 =	18	÷	2 =
8	÷	80 =	18	÷	20 =
8	÷	800 =	18	÷	200 =
8	÷	8,000 =	18	÷	2,000 =
8	÷	80,000 =	18	÷	20,000 =
63	÷	9 =	156	÷	2 =
63	÷	90 =	156	÷	20 =
63	÷	900 =	156	÷	200 =
63	÷	9,000 =	156	÷	2,000 =
63	÷	90,000 =	156	÷	20,000 =

Challenge

Dividing by Multiples of Powers of Ten (A)

140 ÷ 2	=	88 ÷ 8	=
1,400 ÷ 20	=	880 ÷ 80	=
14,000 ÷ 200	=	8,800 ÷ 800	=
140,000 ÷ 2,000	=	88,000 ÷ 8,000	=
16 ÷ 2	=	10,800 ÷ 9	=
160 ÷ 20	=	108,000 ÷ 90	=
1,600 ÷ 200	=	1,080,000 ÷ 900	=
16,000 ÷ 2,000	=	10,800,000 ÷ 9,000	=
60 ÷ 3	=	132 ÷ 11	=
600 ÷ 30	=	1,320 ÷ 110	=
6,000 ÷ 300	=	13,200 ÷ 1,100	=
60,000 ÷ 3,000	=	132,000 ÷ 11,000	=
1,800 ÷ 3	=	132 ÷ 12	=
18,000 ÷ 30	=	1,320 ÷ 120	=
180,000 ÷ 300	=	13,200 ÷ 1,200	=
1,800,000 ÷ 3,000	=	132,000 ÷ 12,000	=
88,000 ÷ 11	=	8,000 ÷ 8	=
880,000 ÷ 110	=	80,000 ÷ 80	=
8,800,000 ÷ 1,100	=	800,000 ÷ 800	=
88,000,000 ÷ 11,000	=	8,000,000 ÷ 8,000	=
45 ÷ 5	=	1,600 ÷ 4	=
450 ÷ 50	=	16,000 ÷ 40	=
4,500 ÷ 500	=	160,000 ÷ 400	=
45,000 ÷ 5,000	=	1,600,000 ÷ 4,000	=

Multiplying by Multiples of Negative Powers of Ten (D)

Single-Digit Facts

7	x	9	=		9	x	3	=
7	x	0.9	=		9	x	0.3	=
7	x	0.09	=		9	x	0.03	=
7	x	0.009	=		9	x	0.003	=
7	x	0.0009	=		9	x	0.0003	=
6	x	6	=		2	x	7	=
6	x	0.6	=		2	x	0.7	=
6	x	0.06	=		2	x	0.07	=
6	x	0.006	=		2	x	0.007	=
6	x	0.0006	=		2	x	0.0007	=
1	x	7	=		4	x	8	=
1	x	0.7	=		4	x	0.8	=
1	x	0.07	=		4	x	0.08	=
1	x	0.007	=		4	x	0.008	=
1	x	0.0007	=		4	x	0.0008	=
3	x	2	=		8	x	4	=
3	x	0.2	=		8	x	0.4	=
3	x	0.02	=		8	x	0.04	=
3	x	0.002	=		8	x	0.004	=
3	x	0.0002	=		8	x	0.0004	=
5	x	3	=		13	x	3	=
5	x	0.3	=		13	x	0.3	=
5	x	0.03	=		13	x	0.03	=
5	x	0.003	=		13	x	0.003	=
5	x	0.0003	=		13	x	0.0003	=

Challenge

Multiplying by Multiples of Negative Powers of Ten (A)

30 x 3	=	1,000 x 12	=
300 x 0.3	=	10,000 x 1.2	=
3,000 x 0.03	=	100,000 x 0.12	=
30,000 x 0.003	=	1,000,000 x 0.012	=
3,000 x 6	=	500 x 2	=
30,000 x 0.6	=	5,000 x 0.2	=
300,000 x 0.06	=	50,000 x 0.02	=
3,000,000 x 0.006	=	500,000 x 0.002	=
8,000 x 2	=	80 x 6	=
80,000 x 0.2	=	800 x 0.6	=
800,000 x 0.02	=	8,000 x 0.06	=
8,000,000 x 0.002	=	80,000 x 0.006	=
700 x 12	=	50 x 11	=
7,000 x 1.2	=	500 x 1.1	=
70,000 x 0.12	=	5,000 x 0.11	=
700,000 x 0.012	=	50,000 x 0.011	=
600 x 4	=	800 x 9	=
6,000 x 0.4	=	8,000 x 0.9	=
60,000 x 0.04	=	80,000 x 0.09	=
600,000 x 0.004	=	800,000 x 0.009	=
3,000 x 10	=	800 x 2	=
30,000 x 1	=	8,000 x 0.2	=
300,000 x 0.1	=	80,000 x 0.02	=
3,000,000 x 0.01	=	800,000 x 0.002	=

Multiplying by Multiples of Negative Powers of Ten (E)

70 x 12	=	500 x 4	=
700 x 1.2	=	5,000 x 0.4	=
7,000 x 0.12	=	50,000 x 0.04	=
70,000 x 0.012	=	500,000 x 0.004	=
20 x 6	=	6,000 x 10	=
200 x 0.6	=	60,000 x 1	=
2,000 x 0.06	=	600,000 x 0.1	=
20,000 x 0.006	=	6,000,000 x 0.01	=
9 x 6	=	7,000 x 12	=
90 x 0.6	=	70,000 x 1.2	=
900 x 0.06	=	700,000 x 0.12	=
9,000 x 0.006	=	7,000,000 x 0.012	=
300 x 2	=	9,000 x 11	=
3,000 x 0.2	=	90,000 x 1.1	=
30,000 x 0.02	=	900,000 x 0.11	=
300,000 x 0.002	=	9,000,000 x 0.011	=
50 x 3	=	11,000 x 2	=
500 x 0.3	=	110,000 x 0.2	=
5,000 x 0.03	=	1,100,000 x 0.02	=
50,000 x 0.003	=	11,000,000 x 0.002	=
4 x 11	=	70 x 11	=
40 x 1.1	=	700 x 1.1	=
400 x 0.11	=	7,000 x 0.11	=
4,000 x 0.011	=	70,000 x 0.011	=

If you think you have trained hard enough to overcome the terrifying Catwoman then speak to your teacher… this one may be tricky…

If you win, then stick your certificate here and reflect on any areas you are strong at or may need to work on before you move forward.

TRAIN TO BEAT IRONMAN

IRONMAN IS GOING TO TEST YOUR POWERS OF MENTAL MULTIPLICATION; YOU NEED TO BE ABLE TO MULTIPLY 2 DIGIT NUMBERS BY SINGLE DIGIT NUMBERS... IN YOUR HEAD! DO NOT WORRY THOUGH-THERE IS A SIMPLE WAY OF DOING THIS THAT I KNOW YOU CAN DO WITH A LITTLE BIT OF PRACTISE. MAYBE YOU CAN HELP ME TO FINALLY DEFEAT HIM!

TRAINING TIPS AND TRICKS

Remember, we can multiply a two digit number by a single digit number by breaking it down into three steps:

1. separating the two digit number into tens and units
2. multiplying both of these by the single digit number
3. adding the two results together:

Example multiplication:

26 X 5 =

20 x 5 = 6 x 5 =	Separate 26 into tens and units, and multiply each by the single digit number, 5
20 x 5 = 100	Multiply the tens
6 x 5 = 30	Multiply the units
100 + 30 = 130	Add together the results
So...	
26 x 5 = 130	

Psst... you can use the "magic zero" here:
2 x 5 = 10

20 x 5 = 100

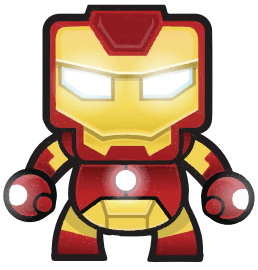
Example multiplication:

2 x 14 =

10 x 2 = 4 x 2 =	Separate 14 into tens and units, and multiply each by the single digit number, 2
10 x 2 = 20	Multiply the tens
4 x 2 = 8	Multiply the units
20 + 8 = 28	Add together the results
So...	
2 x 14 = 28	

Psst... you can use the "magic zero" here:
1 x 2 = 2

10 x 2 = 20



Multiplying 1 and 5 by Teen Numbers

Example	**17 x 5**
Partition the 2-digit number:	17 = 10 and 7
Multiply each part by 5:	10 x 5 = 50 7 x 5 = 35
Add the two parts back together:	50 + 35 = **85**

Example	**2 x 14**
Partition the 2-digit number:	14 = 10 and 4
Multiply each part by 5:	10 x 2 = 20 4 x 2 = 8
Add the two parts back together:	20 + 8 = **28**

- Complete the following using the above method

14 x 5 = 70 10 x 5 = 50 4 x 5 = 20 50 + 20 = 70	**18 x 2 = _____** 10 x 2 = _____ 8 x 2 = _____ _____ + _____ = _____	**5 x 11 = _____** 5 x 10 = _____ 5 x 1 = _____ _____ + _____ = _____
2 x 19 = _____ 2 x 10 = _____ 2 x 9 = _____	**5 x 12 = _____** 5 x 10 = _____ 5 x 2 = _____	**17 x 2 = _____** 10 x 2 = _____ 7 x 10 = _____
16 x 5 = _____ 10 x 5 = _____ 6 x 5 = _____	**2 x 15 = _____** 2 x 10 = _____ 2 x 5 = _____	**5 x 13 = _____** 5 x 10 = _____ 5 x 3 = _____
12 x 2 = _____	**15 x 5 = _____**	**2 x 16 = _____**

Multiplication using Partitioning

Please set out your work like this: the next step is to do it mentally and this will help you.

25 x 3 =

	T	U	
	2	5	
x		3	
	6	0	(20 x 3)
+	1	5	(5 x 3)
	7	5	

Section A (2 digits x 1 digit, 2s, 3s, 4s and 5s)

1) 12 x 5
2) 61 x 2
3) 44 x 3
4) 18 x 4
5) 29 x 5
6) 73 x 2
7) 16 x 3
8) 94 x 4
9) 25 x 2
10) 52 x 5
11) 23 x 5
12) 47 x 3
13) 82 x 2
14) 13 x 5
15) 54 x 4

Section B (2 digits x 1 digit, 6s, 7s, 8s and 9s)

1) 62 x 7
2) 28 x 9
3) 31 x 6
4) 14 x 8
5) 39 x 9
6) 72 x 6
7) 21 x 7
8) 85 x 9
9) 27 x 8
10) 34 x 8
11) 49 x 7
12) 17 x 6
13) 77 x 8
14) 58 x 9
15) 22 x 7

Multiplying two digit numbers by single digit numbers (HT numbers x T numbers)

Remember, we can multiply a two digit number by a single digit number by separating the two digit number into tens and units, and multiplying both of these by the single digit number, then adding the two results together:
16 x 5 ⟶ separate 16 into tens and units, and multiply each by the single digit number, 5
(10 x 5) + (6 x 5) ⟶ work each of these out
(50) + (30) ⟶ and add them together!
16 x 5 = 80

Work out the following multiplications:

17 x 5	14 x 4
12 x 9	14 x 5
15 x 3	13 x 9
12 x 5	13 x 5
19 x 3	19 x 5
Five people have thirteen apples each. How many apples are there altogether?	
A school has seven classrooms. There are twelve children in each one. How many children are there in the whole school?	

MULTIPLICATION
2 digits × 1 digit

73 × 5 =	75 × 3 =	76 × 2 =
13 × 8 =	22 × 5 =	28 × 6 =
30 × 6 =	65 × 8 =	57 × 8 =
12 × 3 =	61 × 2 =	56 × 8 =
87 × 7 =	56 × 2 =	83 × 5 =
46 × 5 =	37 × 8 =	68 × 8 =
53 × 3 =	74 × 6 =	12 × 7 =
14 × 3 =	35 × 7 =	82 × 3 =
96 × 3 =	48 × 8 =	25 × 6 =
14 × 2 =	41 × 4 =	21 × 3 =
75 × 7 =	78 × 9 =	98 × 2 =
99 × 7 =	42 × 4 =	20 × 6 =

MULTIPLICATION
2 digits × 1 digit

Multiplying 10s by 1 digit number:

30 × 2 = ☐	30 × 5 = ☐	60 × 3 = ☐
20 × 8 = ☐	20 × 3 = ☐	40 × 9 = ☐
10 × 2 = ☐	50 × 7 = ☐	60 × 8 = ☐
20 × 4 = ☐	80 × 2 = ☐	40 × 5 = ☐

Multiplication to 100:

4 × 6 = ☐	2 × 6 = ☐	6 × 4 = ☐
5 × 8 = ☐	8 × 10 = ☐	2 × 3 = ☐
8 × 5 = ☐	9 × 4 = ☐	8 × 3 = ☐
3 × 8 = ☐	5 × 10 = ☐	6 × 9 = ☐

Adding partial products:

32 +360 ☐	4 +80 ☐	8 +40 ☐	6 +210 ☐
12 +160 ☐	6 +240 ☐	48 +320 ☐	24 +90 ☐

Multiplication

1) 36 × 9

2) 49 × 8

3) 78 × 4

4) 56 × 5

5) 77 × 9

6) 14 × 6

7) 65 × 8

8) 97 × 7

9) 30 × 5

10) 12 × 3

11) 69 × 8

12) 96 × 2

13) 22 × 4

14) 73 × 9

15) 91 × 6

16) 86 × 3

17) 58 × 3

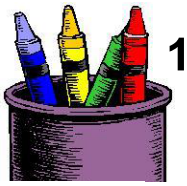
18) 63 × 2

19) 32 × 9

20) 49 × 4

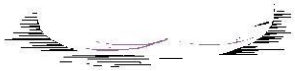
Multiplication Problems

Write the sum and find the answer.



1) There are 42 crayons in a pot. How many crayons in 5 pots?

.....



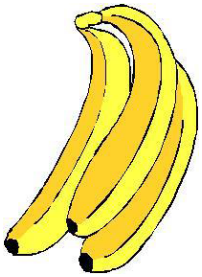
2) There are 72 wings on one bird. How many wings on 9 birds?

.....

3) One dog has 74 legs. How many legs on 3 dogs?

.....

4) One banana costs 10p. How much do twenty-three bananas cost?



.....

5) There are 5 points on one star. How many points on 58 stars?

.....

6) There are six people in the running team. How many people in 29 teams?

.....

7) Apples cost 9p each. How much for 25 apples?

.....

8) There are 4 leaves on each plant. How many leaves on 73 plants?

Multiplication

1) 23 × 6

2) 89 × 4

3) 65 × 3

4) 47 × 8

5) 97 × 2

6) 46 × 5

7) 72 × 7

8) 37 × 0

9) 51 × 8

10) 34 × 3

11) 67 × 4

12) 15 × 5

13) 83 × 6

14) 95 × 1

15) 17 × 3

16) 50 × 9

17) 26 × 7

18) 73 × 8

19) 64 × 5

20) 19 × 4

If you think you have trained hard enough to overcome Ironman then have a chat with your teacher. Only two more to go now!

If you win, then stick your certificate here and reflect on any areas you are strong at or may need to work on before you move onto the last hero!

TRAIN TO BEAT WONDER WOMAN

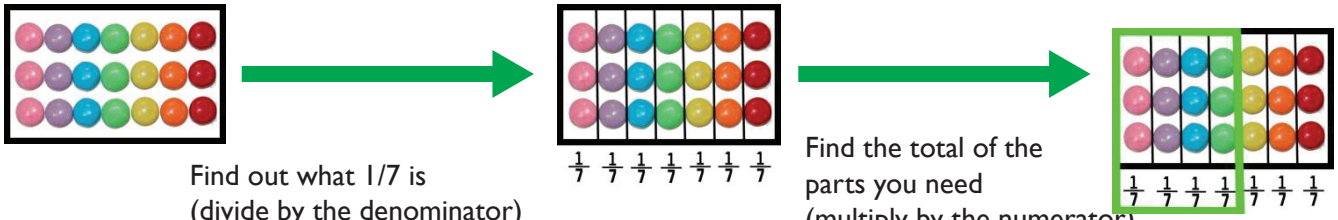
YOU ARE SO CLOSE TO BECOMING A MASTER OF MATHS- THERE IS ONLY WONDER WOMAN LEFT TO BEAT! USE THESE TIPS AND, WITH SOME HARD WORK, YOU WILL BE ABLE TO OVERCOME HER!

FINDING FRACTIONS OF AMOUNTS

When thinking about fractions, decimals and percentages we need to remember that they all show **how many parts of a whole we have.** To find the fraction of an amount you need to:

1. Divide by the denominator
2. Multiply by the numerator

To explain why this works, take this example: Myra has 21 sweets and gives 4/7 to a friend. How many does she give away?



Find out what 1/7 is
(divide by the denominator)
21 ÷ 7 = 3 so 1/7 = 3

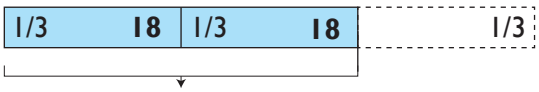
Find the total of the parts you need
(multiply by the numerator)
3 x 4 = 12 so 4/7 = 12

FINDING THE WHOLE FROM A FRACTION

Again, the key thing here is to remember that fractions, decimals and percentages all mean **parts of a whole.** If we know what the part of the whole is, we can use this to work out the complete whole by:

1. Find what 1/n is: (divide by the numerator)
2. Find n/n (multiply by the denominator)

Consider this example: Adri has won 2/3 of his races so far. If he has won 36 in total, what is the maximum he could have won? Take a look at the fraction strips to the right to see how this problem can be approached.



1. First we need to find what 1/3 is:
2/3 = 36 so 1/3 = 36 ÷ 2 = 18

2. Now let's find out the whole (3/3)
3/3 = 18 x 3 = 54

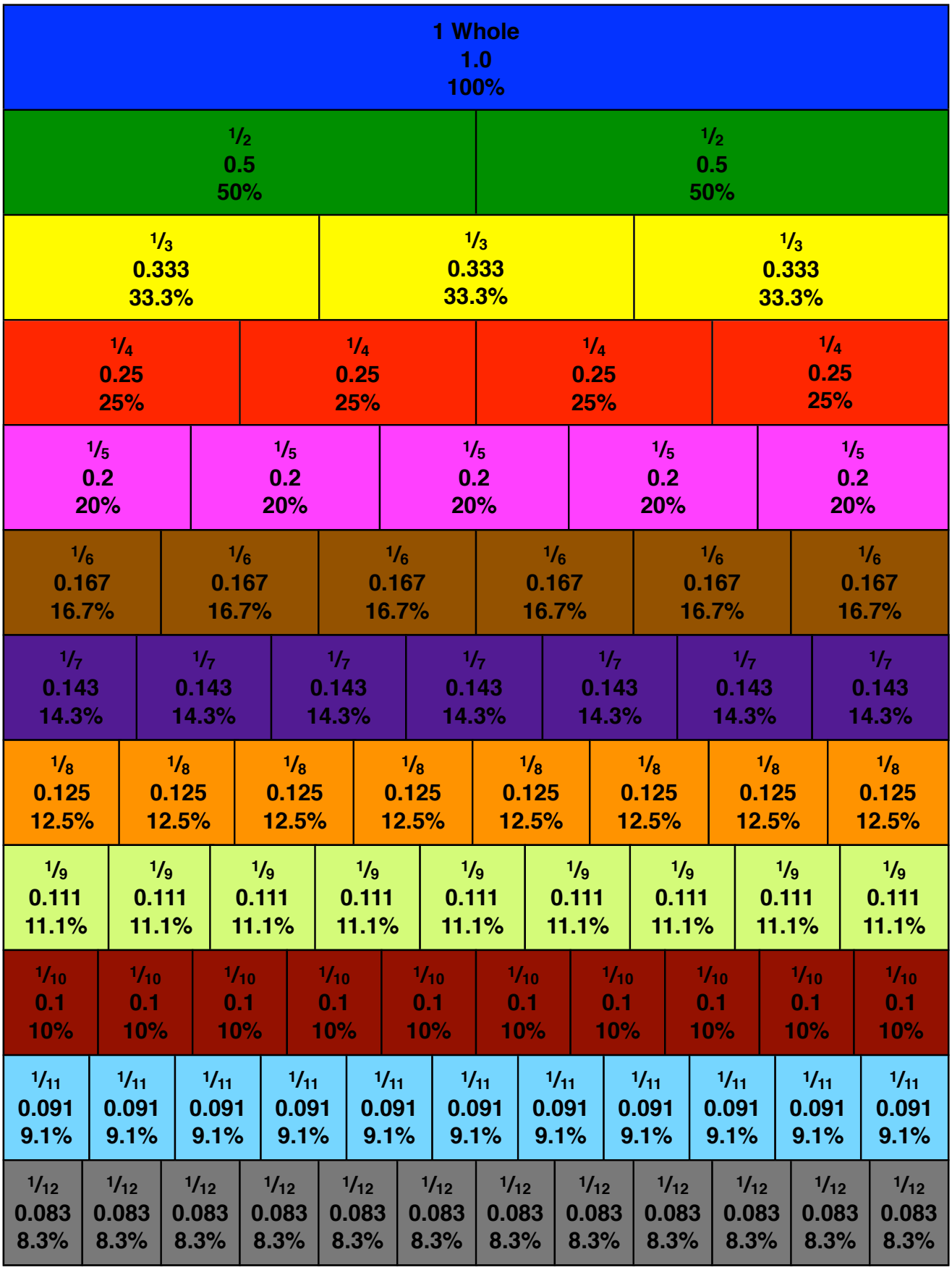
FUN FACT!

Remember your work on order of operations? You should know that division and multiplication are as important as each other so they happen at the same time. With fractions of amounts, this means that you can do either operation first and get the same result! Let's look at the two examples we have already seen:

1. **Option 1:** 21 ÷ 7 = 3, 3 x 4 = **12** **or the opposite:** 21 x 4 = 84, 84 ÷ 7 = **12**
2. **Option 1:** 36 ÷ 2 = 18, 18 x 3 = **54** **or the opposite:** 36 x 3 = 108, 108 ÷ 2 = **54**

As long as we only change the order of operations, the answer stays the same; pretty cool eh?!

TRAIN TO BEAT WONDER WOMAN!



Fractions, decimals and percentages are different ways of presenting the same information; they all mean "parts of a whole". Use these fraction strips to help you convert between them.

Finding Fractions of Numbers and Shapes.

To find a fraction of a number you divide by the bottom number and multiply by the top number. This is because the denominator tells us how much to break the whole into and the numerator tells us how much of the whole we are talking about.

To find ¾ of 12:

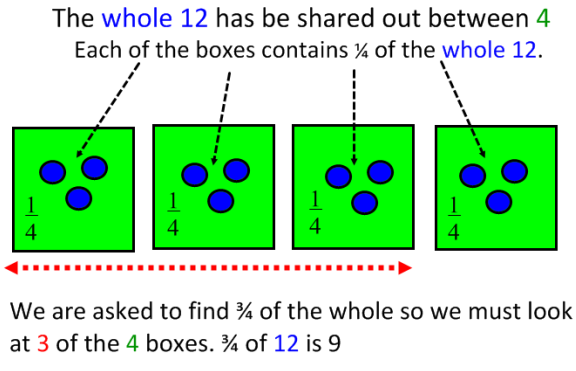
12 ÷ 4 = 3

(Divide the whole by the denominator)

3 x 3 = 9

(Multiply the answer by the numerator)

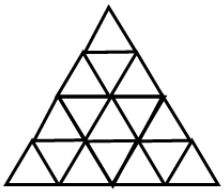
So ¾ of 12 = 9



Use this method to help you answer these questions.

1. ⅕ of 30 = ___
2. ⅛ of 16 = ___
3. ⅚ of 18 = ___
4. ⅘ of 30 = ___
5. ⅞ of 32 = ___
6. ⅔ of 27 = ___
7. ⅖ of 25 = ___
8. ⅜ of 40 = ___
9. ¾ of 36 = ___
10. ⅚ of 36 = ___
11. ⅞ of 48 = ___
12. ⅔ of 36 = ___
13. ¾ of 48 = ___
14. ⅘ of 45 = ___
15. ⅜ of 72 = ___

Now shade the correct amount of these shapes.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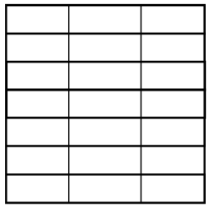
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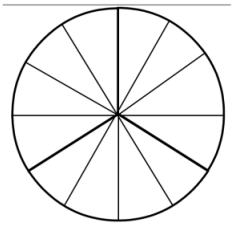
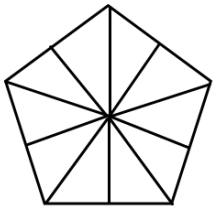
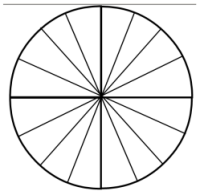

1/3


1/5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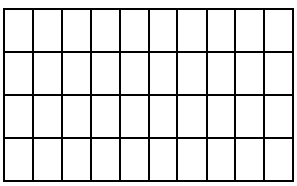
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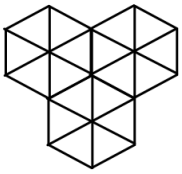
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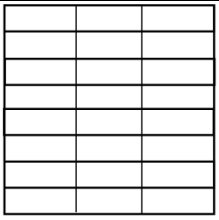

5/12

Percentages

% TO DECIMALS

25% = 25/100
= 25 ÷ 100
= 0.25

Change the following percentages to decimals.

1. 40% = _____
2. 65% = _____
3. 75% = _____
4. 9% = _____
5. 93% = _____
6. 20% = _____
7. 6% = _____
8. 50% = _____

DECIMALS TO %

0.63 = 63/100
= 63%

Change these decimals to percentages.

1. 0.01 = _____
2. 0.44 = _____
3. 0.65 = _____
4. 0.5 = _____
5. 0.8 = _____
6. 0.75 = _____

% TO FRACTIONS

45% = 45/100 (÷5)
= 9/20

Change these percentages to fractions.

1. 60% = _____
2. 55% = _____
3. 10% = _____
4. 48% = _____
5. 29% = _____
6. 5% = _____

1/4 = 25/100
= 25%

Change these fractions to percentages.

1. 1/4 = _____
2. 1/5 = _____
3. 18/20 = _____
4. 3/4 = _____
5. 3/5 = _____
6. 1/2 = _____

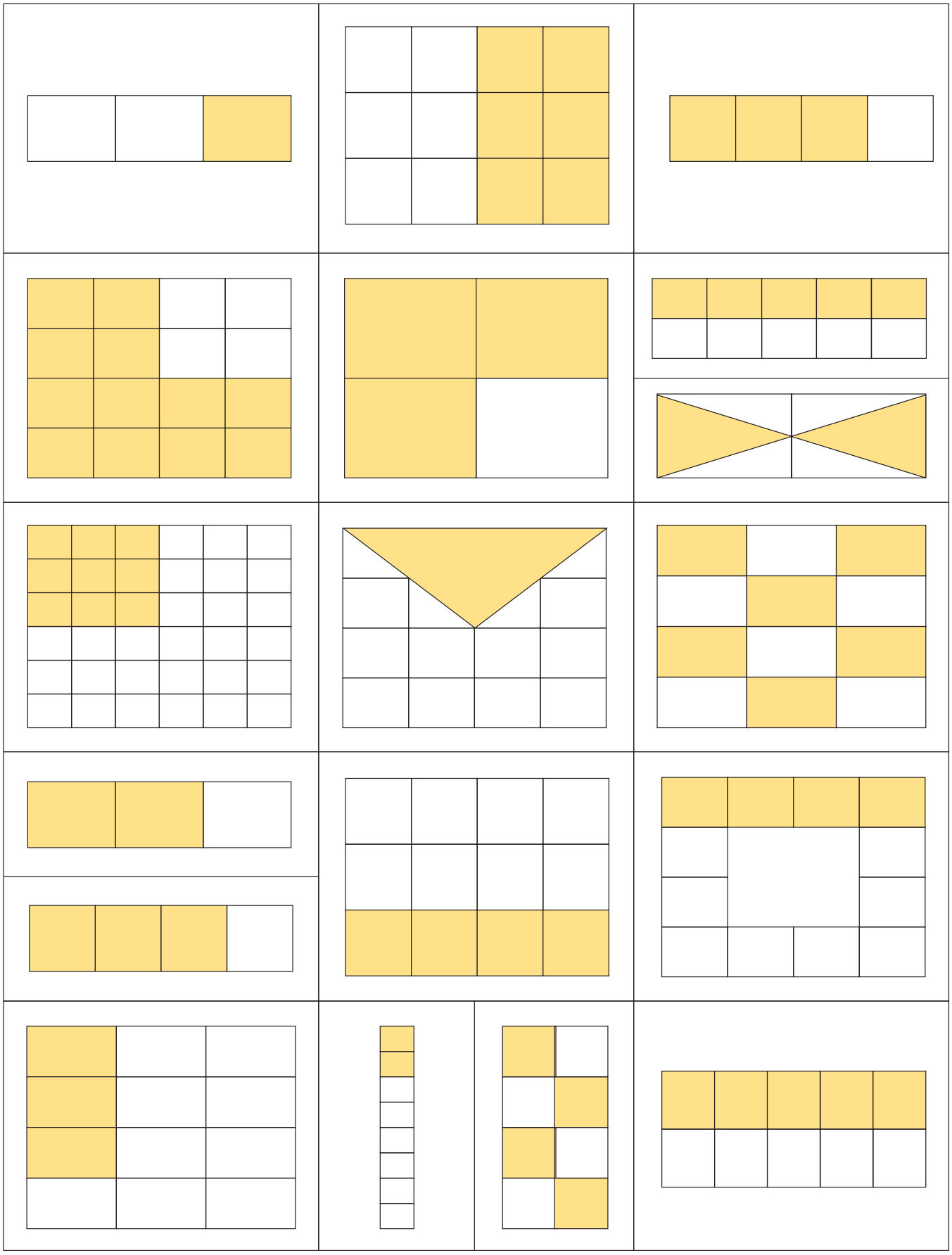
Change these fractions to decimals.

1. 1/4 = _____
2. 1/5 = _____
3. 1/2 = _____
4. 5/8 = _____
5. 3/5 = _____
6. 13/20 = _____

Change these decimals to fractions.

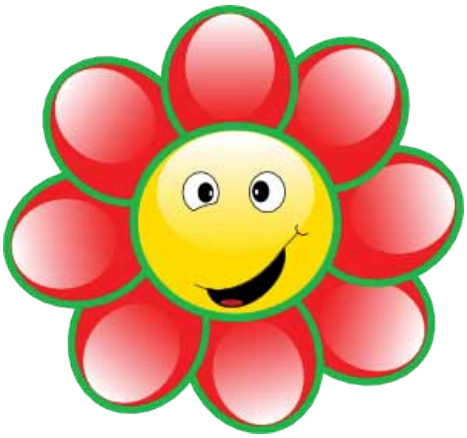
1. 0.05 = _____
2. 0.34 = _____

What amount is shaded? Write your answer as a fraction, decimal and percentage.



Comparing Fractions and Decimals

Compare the following fractions and decimals by using >, < or =



1.2	☐	$1\frac{3}{9}$	1.5	☐	$1\frac{6}{11}$			
$2\frac{4}{12}$	☐	2.3	$3\frac{3}{8}$	☐	3.8			
7.5	☐	$7\frac{4}{7}$	1.8	☐	$1\frac{4}{5}$			
$4\frac{4}{11}$	☐	4.3	$1\frac{5}{7}$	☐	1.6	$5\frac{4}{11}$	☐	5.5
1.9	☐	$1\frac{8}{9}$	2.2	☐	$2\frac{2}{7}$	1.6	☐	$1\frac{4}{6}$
$1\frac{5}{6}$	☐	1.8	$1\frac{2}{3}$	☐	1.7	$1\frac{3}{9}$	☐	1.3
8.2	☐	$8\frac{2}{17}$	1.4	☐	$1\frac{8}{20}$	2.9	☐	$2\frac{1}{2}$
$4\frac{3}{12}$	☐	1.2	$1\frac{3}{5}$	☐	1.7	$1\frac{2}{13}$	☐	1.2
1.1	☐	$1\frac{1}{11}$	3.4	☐	$3\frac{4}{9}$	5.2	☐	$5\frac{1}{8}$
$4\frac{3}{7}$	☐	4.4	$1\frac{1}{6}$	☐	1.2	$1\frac{5}{6}$	☐	1.8

Fractions of Numbers

Find the fractional value of each of the numbers below.

(1) What is $\frac{1}{3}$ of 36? _____

(2) What is $\frac{1}{6}$ of 54? _____

(3) What is $\frac{4}{5}$ of 35? _____

(4) What is $\frac{1}{5}$ of 140? _____

(5) What is $\frac{9}{25}$ of 100? _____

(6) What is $\frac{8}{15}$ of 135? _____

(7) What is $\frac{1}{2}$ of 42? _____

(8) What is $\frac{3}{20}$ of 60? _____

(9) What is $\frac{1}{2}$ of 70? _____

(10) What is $\frac{1}{7}$ of 63? _____

(11) What is $\frac{1}{2}$ of 30? _____

(12) What is $\frac{1}{2}$ of 56? _____

(13) What is $\frac{1}{2}$ of 48?

(14) What is $\frac{1}{3}$ of 45? _____

(15) What is $\frac{2}{5}$ of 50? _____

(16) What is $\frac{1}{3}$ of 84? _____

(17) What is $\frac{1}{2}$ of 60? _____

(18) What is $\frac{7}{10}$ of 40? _____

(19) What is $\frac{1}{3}$ of 72? _____

(20) What is $\frac{13}{15}$ of 105? _____

(21) What is $\frac{31}{45}$ of 90? _____

(22) What is $\frac{2}{3}$ of 30? _____

(23) What is $\frac{1}{2}$ of 48? _____

(24) What is $\frac{1}{2}$ of 36? _____

(25) What is $\frac{3}{25}$ of 75? _____

(26) What is $\frac{1}{2}$ of 48?

Find the Whole from Part

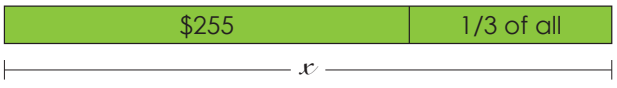
1. Find the whole when part is know. Note closely the type of reasoning.

a. 4/5 of John's salary is $800. 1/5 of his salary is $_____. His salary is $_____.	b. 3/8 of the books in a store is 630 books. 1/8 of the books is _____. In total, there are _____ books.
c. 30% of a shirt's price is $4.20. 10% of the price is _____. The whole price is _____.	d. 17% of the people is 221 people. 1% of the people is _____ people. There are _____ people in all.

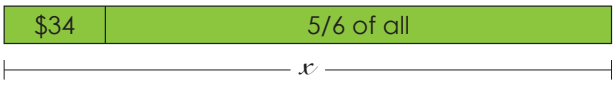
2. Find the whole when a part is known. First, find a smaller part, such as 10% or 1%, then use that value to find the whole.

a. 2/3 of a number is 48	b. 3/5 of a number is 99	c. 5/8 of a number is 75
d. 40% of a price is &16	e. 90% of a salary is $1080	f. 70% of the people is 161 people
g. 8% of a price is $2.40	h. 45% of the people is 720 people	i. 19% of the water was 1167 L

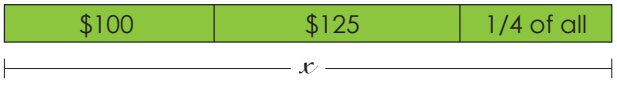
3. Now x represents the WHOLE amount, and it is divided into various parts. Solve for x



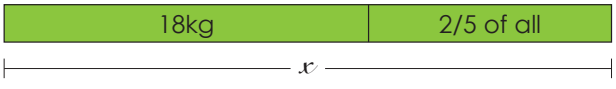
a.



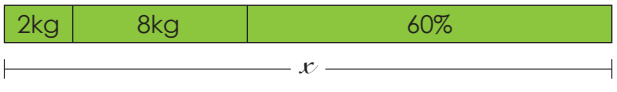
b.



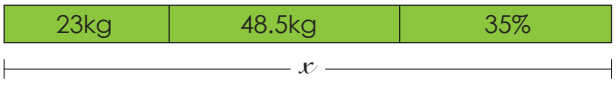
c.



d.



e.



f.

Use your knowledge and understanding to solve these percentage problems. Don't forget to show how you worked them out and check the units carefully!

1. 45% of ____ = 36m
2. 35% of ____ = 7cm
3. 62% of ____ = 124ml
4. 24% of ____ = £21.60
5. 12% of ____ = 4.32l
6. 15% of ____ = £2.25
7. 20% of ____ = 12mm
8. 30% of ____ = 12km
9. 85% of ____ = £72.25
10. 55% of ____ = £44.55
11. 45% of ____ = 81mm
12. 48% of ____ = 48ml
13. 11% of ____ = £13.31
14. 60% of ____ = 30 inches
15. 39% of ____ = £29.25
16. 20% of ____ = 12kg
17. 42% of ____ = 63g
18. 18% of ____ = 25.20l
19. 27% of ____ = 51.30l
20. 31% of ____ = £68.20

Percentage Increase & Decrease

Fill in the gaps...

Percentage Increase

	Original Amount	% Increase	New Amount
1)	56	25%	
2)	6	50%	
3)	5	20%	
4)	8	75%	14
5)	10	90%	
6)	30	70%	
7)	50	2%	
8)	21	100%	

	Original Amount	% Increase	New Amount
9)	32		56
10)	24	25%	30
11)	15		18
12)	30		33
13)	150		153
14)	120		126
15)	200		202
16)	20		50

Percentage Decrease

	Original Amount	% Decrease	New Amount
1)	50	30%	
2)	18	50%	
3)	25	4%	
4)	60	35%	
5)	40	15%	
6)	64	75%	16
7)	40	45%	
8)	45	60%	

	Original Amount	% Decrease	New Amount
9)	20		19
10)	14		7
11)	90	10%	81
12)	35		21
13)	400		4
14)	50		47
15)	125		115
16)	150		132

You have finally reached the powerful Wonder Woman; speak to your teacher when you are ready to become a maths superhero!

Remember; just because you are a maths superhero it does not mean that the training can stop… write what your next target is below. Also, what sort of training will you do to make sure you achieve it?

NOTES :

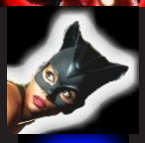
NOTES :

The path to becoming a Superhero

Maths Superhero!

WONDER WOMAN — Fractions, decimals and percentages of quantities

IRONMAN — 2 digits X 1 digit

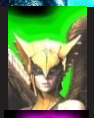


CATWOMAN — All with place value- THU and tenths (By the end of year 5)

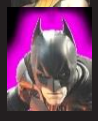
SUPERMAN — All with division

BLACK WIDOW — 9X, 11X, 12X

THOR — 6X, 7X, 8X



HAWK-GIRL — 3X, 4X



BATMAN — 2x, 5x, 10x

The road will be long and each hero will do their best to make you falter. Do you have what it takes to succeed? Train hard to beat the bosses and achieve greatness; good luck Maths warrior!