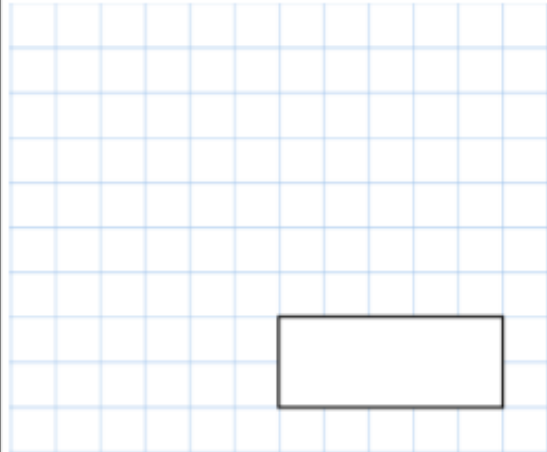
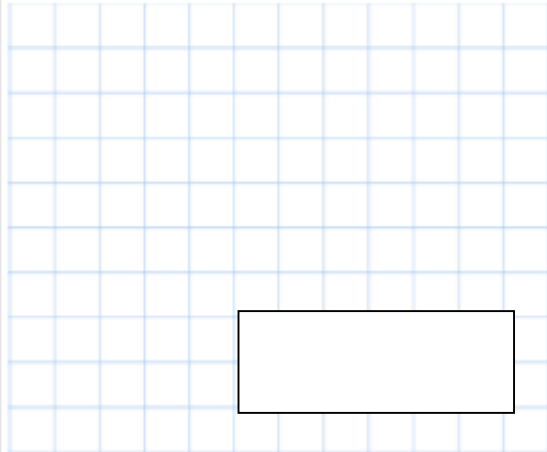


Monday- 5 a day

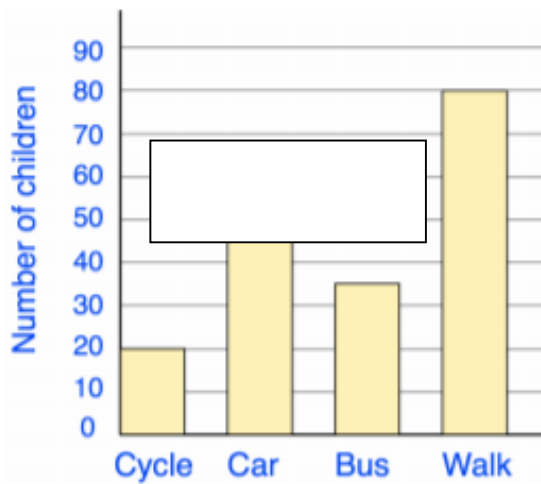
$$144 \div 12$$



$$5.1 - 0.8$$



A teacher recorded how the students travelled to school every morning. The bar chart shows the results.

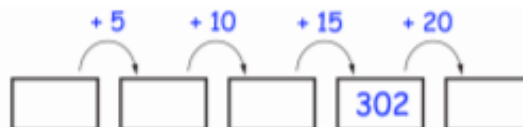


How many children travelled by car?

Benjamin said "twice as many children travel by car than bus."

Is he right?

Find the missing numbers



Tuesday- 5 a day

$$2,056 + 362$$

$$138 \div 6$$

4,837 fans watched a football match between AFC Telford and Lincoln City.

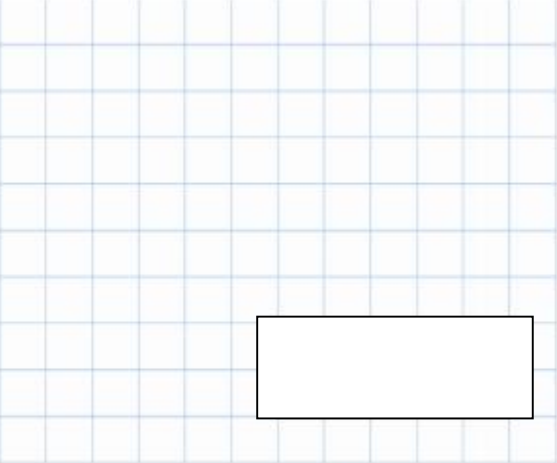
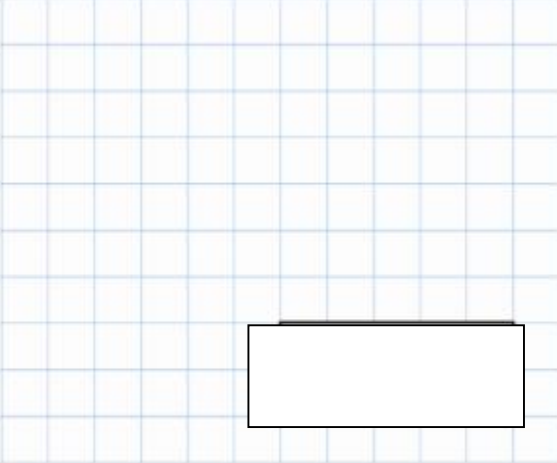

Round 4,837 to the nearest 100

Caravan name	Sleeps	Decking	Price
Flamingo	2	Yes	£345
Albatross	4	Yes	£529
Penguin	6	Yes	£559
Pelican	4	No	£475
Seagull	8	No	£699

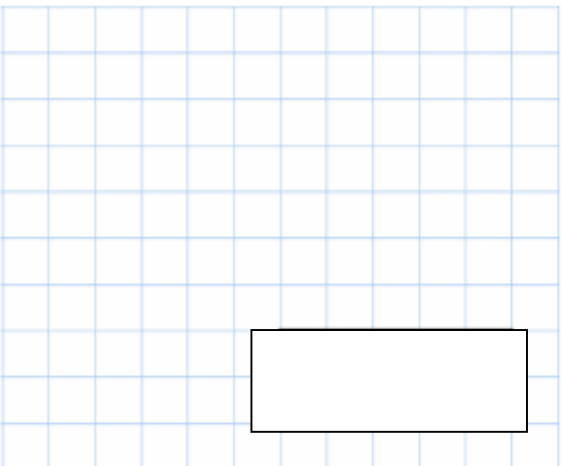
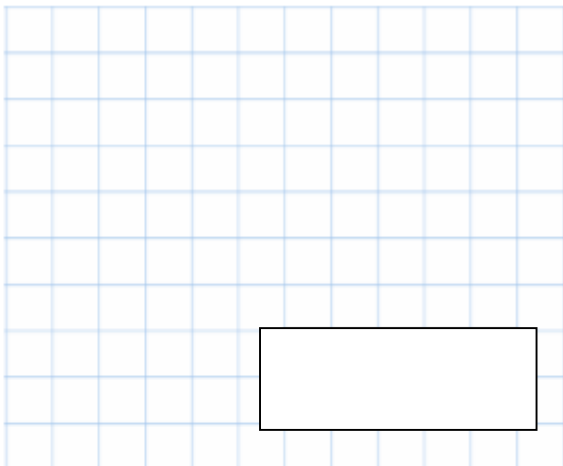
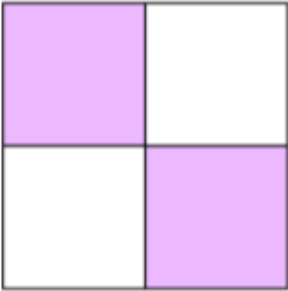

Which down the name of the caravan that sleeps 4 and has a decking

How many caravans sleep 8 people?

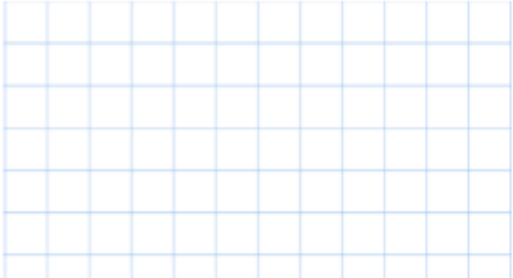






Wednesday- 5 a day

$90,000 - 800$  <div style="border: 1px solid black; width: 150px; height: 40px; margin: 20px auto;"></div>	$3500 \div 100$  <div style="border: 1px solid black; width: 150px; height: 40px; margin: 20px auto;"></div>								
<p>A song lasts 2 minutes 45 seconds.</p> <p>How long does the song last in seconds?</p> <div style="border: 1px solid black; width: 150px; height: 40px; margin: 20px auto;"></div>									
<table border="1" style="width: 100%;"> <tr> <td style="width: 15%;">Paris</td> <td>○ ○ ◐</td> </tr> <tr> <td>Cork</td> <td>○ ○ ○</td> </tr> <tr> <td>London</td> <td>○ ◑</td> </tr> <tr> <td>Swansea</td> <td>○ ○ ◐</td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Key    ○ = 4 hours</p> </div>	Paris	○ ○ ◐	Cork	○ ○ ○	London	○ ◑	Swansea	○ ○ ◐	<p>How many hours of sunshine did <b>Paris</b> have?</p> <div style="border: 1px solid black; width: 150px; height: 40px; margin: 20px auto;"></div>
Paris	○ ○ ◐								
Cork	○ ○ ○								
London	○ ◑								
Swansea	○ ○ ◐								
<p>Which city had the <b>least</b> amount of sunshine?</p> <div style="border: 1px solid black; width: 150px; height: 40px; margin: 20px auto;"></div>	<p>How many <b>more</b> hours of sunshine did <b>Cork</b> have than <b>Swansea</b>?</p> <div style="border: 1px solid black; width: 150px; height: 40px; margin: 20px auto;"></div>								

Thursday- 5 a day

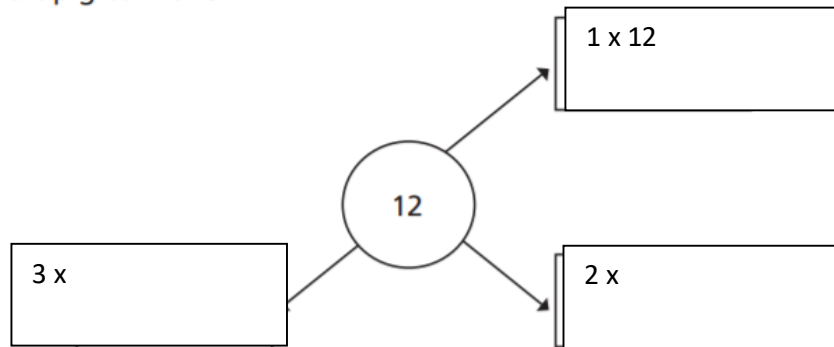
$187 + 408 + 620$   <div data-bbox="470 790 750 896" style="border: 1px solid black; width: 175px; height: 47px; margin: 10px auto;"></div>	$16 \times 3 = 4 \times$ <div data-bbox="1110 336 1299 427" style="border: 1px solid black; width: 118px; height: 41px; display: inline-block;"></div>   <div data-bbox="1059 790 1339 896" style="border: 1px solid black; width: 175px; height: 47px; margin: 10px auto;"></div>
<p>Circle the angle that is obtuse</p> <p>35°    56°    88°    91°</p>	<div data-bbox="895 1041 1174 1146" style="border: 1px solid black; width: 175px; height: 47px; margin: 10px auto;"></div>
<p>What percentage of the shape is shaded?</p> <div data-bbox="319 1406 598 1512" style="border: 1px solid black; width: 175px; height: 47px; margin: 10px auto;"></div>	
<p>Kayleigh has 50 pence, 20 pence and 10 pence pieces.</p> <p>She has 12 of each type of coin.</p> <p>How much money does she have in total?</p>	 <div data-bbox="850 1792 1129 1897" style="border: 1px solid black; width: 175px; height: 47px; margin: 10px auto;"></div>

Friday- 5 a day

$0.6 + 0.6 + 0.6$  <div data-bbox="432 790 715 893" style="border: 1px solid black; height: 46px; width: 177px; margin: 10px auto;"></div>	$7 - 11$  <div data-bbox="979 790 1262 893" style="border: 1px solid black; height: 46px; width: 177px; margin: 10px auto;"></div>
<div style="display: flex; flex-wrap: wrap;"> <div style="border: 1px solid black; padding: 5px; margin: 5px; width: 30%;"> <p>Italy 60,656,000</p>  </div> <div style="border: 1px solid black; padding: 5px; margin: 5px; width: 30%;"> <p>Spain 46,373,068</p>  </div> <div style="border: 1px solid black; padding: 5px; margin: 5px; width: 30%;"> <p>Turkey 81,252,418</p>  </div> <div style="border: 1px solid black; padding: 5px; margin: 5px; width: 30%;"> <p>France 65,089,744</p>  </div> <div style="border: 1px solid black; padding: 5px; margin: 5px; width: 30%;"> <p>Thailand 69,183,173</p>  </div> </div>	<p>Which country has the highest population?</p> <div data-bbox="783 1088 1062 1193" style="border: 1px solid black; height: 47px; width: 175px; margin: 10px auto;"></div>
<p>Which country has the smallest population?</p> <div data-bbox="264 1375 544 1480" style="border: 1px solid black; height: 47px; width: 175px; margin: 10px auto;"></div>	<p>What is the value of the digit 7 in Thailand's population?</p> <div data-bbox="799 1366 1078 1471" style="border: 1px solid black; height: 47px; width: 175px; margin: 10px auto;"></div>
<p>Mr Jenkins has £9,561.</p> <p>He buys a new car that costs £7,750.</p> <p>How much money does he have left?</p>	<div data-bbox="815 1626 1094 1731" style="border: 1px solid black; height: 47px; width: 175px; margin: 10px auto;"></div>

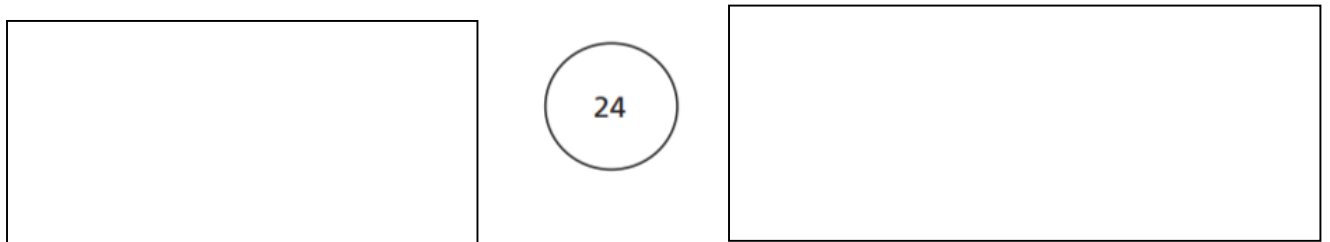
Task 2

- 1) a) Complete the diagram to show the pairs of numbers that multiply to make 12



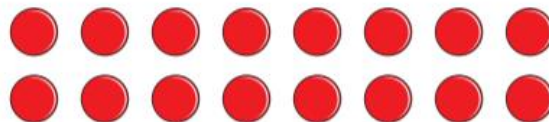
List all the factors of 12

- b) Draw a similar diagram to show the pairs of numbers that multiply to make 24



List all the factors of 24

- 2) Alex arranges 16 counters in different ways.  
She is trying to work out some factors.



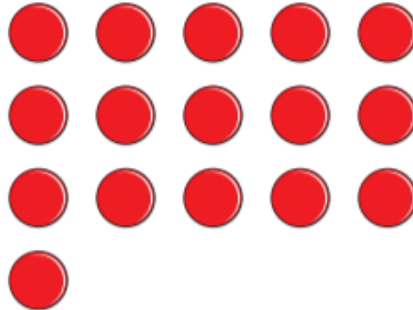
- a) Use the array to complete the sentence.

and

are both factors of 16

3)

Alex rearranges the counters.



How does this array show that 5 is not a factor of 16?

4)

**a)** List all the factors of 32

**b)** How can you check that you have found all the factors?

Task 3

1)

a) Circle the factors of 30

5    15    25    3    30    4    2    12    60    0

Answer

b) These numbers are all factors of a 2-digit number.

1    3    5    9

What could the number be?

2)

Amir and Eva are describing numbers using factors.



Amir

The number 11 does not have any factors.

My number lies between 20 and 25. It only has two factors.



Eva

a) Is Amir correct?

Explain your answer.

b) What number is Eva thinking of?



3)

Which number has the most factors? Tick your answer.

64

48

Answer

4) True or false?

2 and 5 are factor pairs of 10. True or false?

☐

3 and 6 are factors of 15. True or false?

☐

7 and 2 are factor pairs of 72. True or false?

☐

0 and 3 are factor pairs of 30. True or false?

☐

5)

Is this statement always, sometimes or never true?

A number will always have an even number of factors because factors come in factor pairs.

Answer and explanation

Challenge

- 1) Can you find the abundant numbers up to 100?



The abundant numbers I have found are:

To find the **factors** of a number, you have to find **all** the pairs of numbers that multiply together to give that number.

The factors of 48 are:

1 and 48

2 and 24

3 and 16

4 and 12

6 and 8

If we leave out the number we started with, 48, and add all the other factors, we get 76:

$$1 + 2 + 3 + 4 + 6 + 8 + 12 + 16 + 24 = 76$$

So .... 48 is called an **abundant** number because it is less than the sum of its factors (without itself). (48 is less than 76.)

See if you can find some more abundant numbers!

- 2) How do we know that these statements are true?

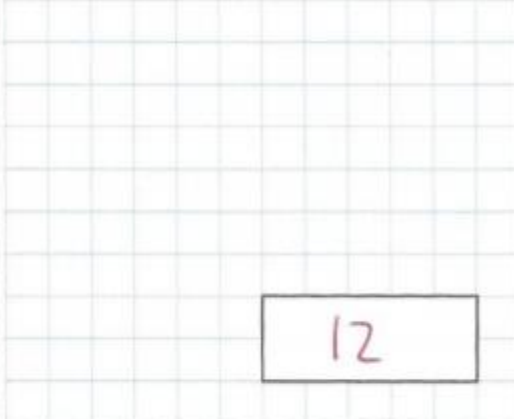
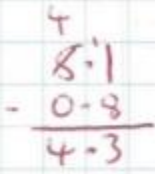
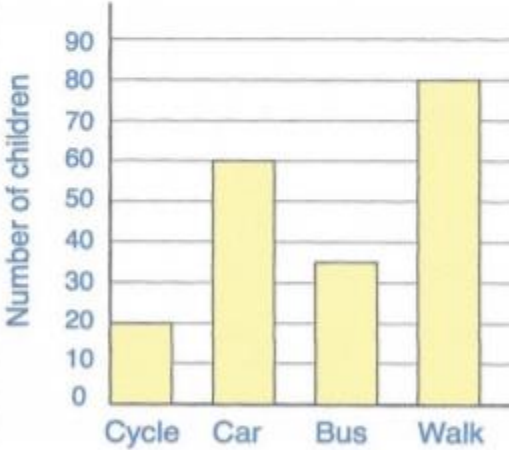
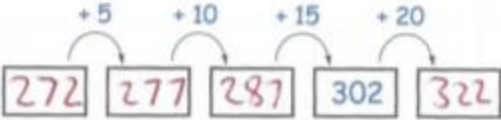
a) 5 is a factor of 195 but not a factor of 196

b) 3 is a factor of 177 but not a factor of 178

c) 20 is a factor of 180 but not a factor of 190

# ANSWERS

Monday

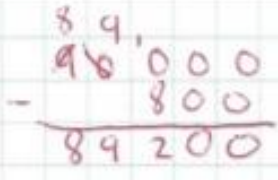


$144 \div 12$   <div style="border: 1px solid black; width: 100px; height: 40px; margin: 20px auto; text-align: center; line-height: 40px;">12</div>	$5.1 - 0.8$   <div style="border: 1px solid black; width: 100px; height: 40px; margin: 20px auto; text-align: center; line-height: 40px;">4.3</div>										
<p>A teacher recorded how the students travelled to school every morning. The bar chart shows the results.</p>  <table border="1"> <caption>Travel to School Data</caption> <thead> <tr> <th>Mode of Transport</th> <th>Number of Children</th> </tr> </thead> <tbody> <tr> <td>Cycle</td> <td>20</td> </tr> <tr> <td>Car</td> <td>60</td> </tr> <tr> <td>Bus</td> <td>35</td> </tr> <tr> <td>Walk</td> <td>80</td> </tr> </tbody> </table>	Mode of Transport	Number of Children	Cycle	20	Car	60	Bus	35	Walk	80	<p>How many children travelled by car?</p> <p style="text-align: center; font-size: 2em;">60</p> <p>Benjamin said "twice as many children travel by car than bus."</p> <p>Is he right? <span style="color: red;">No</span></p> <p style="color: red;"><math>60 \div 2 = 30</math> 35 students got bus.</p>
Mode of Transport	Number of Children										
Cycle	20										
Car	60										
Bus	35										
Walk	80										
<p>Find the missing numbers</p>	 <pre>       +5   +10  +15  +20                            [272] [277] [287] [302] [322]   </pre>										

YEAR 5 – MATHS HOME LEARNING

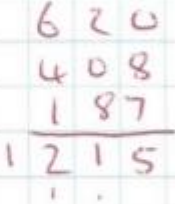
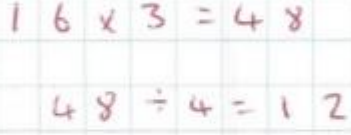
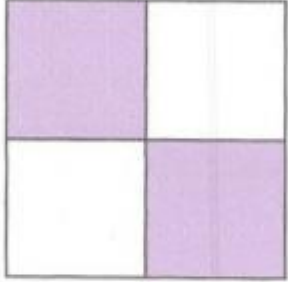

Tuesday

<p><math>2,056 + 362</math></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 150px;"> <math display="block">\begin{array}{r} 2056 \\ + 362 \\ \hline 2418 \end{array}</math> </div> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 100px; text-align: center;"> <p>2418</p> </div>	<p><math>138 \div 6</math></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 150px;"> <math display="block">\begin{array}{r} 023 \\ 6 \overline{)138} \\ \underline{6 \phantom{00}} \\ 13 \\ \underline{12} \\ 18 \\ \underline{18} \\ 0 \end{array}</math> </div> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 100px; text-align: center;"> <p>23</p> </div>																								
<p>4,837 fans watched a football match between AFC Telford and Lincoln City.</p> <p>Round 4,837 to the nearest 100</p>	<p style="font-size: 1.5em; color: red;">4,800</p>																								
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">Caravan name</th> <th style="padding: 5px;">Sleeps</th> <th style="padding: 5px;">Decking</th> <th style="padding: 5px;">Price</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Flamingo</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">Yes</td> <td style="padding: 5px;">£345</td> </tr> <tr> <td style="padding: 5px;">Albatross</td> <td style="padding: 5px;">4</td> <td style="padding: 5px;">Yes</td> <td style="padding: 5px;">£529</td> </tr> <tr> <td style="padding: 5px;">Penguin</td> <td style="padding: 5px;">6</td> <td style="padding: 5px;">Yes</td> <td style="padding: 5px;">£559</td> </tr> <tr> <td style="padding: 5px;">Pelican</td> <td style="padding: 5px;">4</td> <td style="padding: 5px;">No</td> <td style="padding: 5px;">£475</td> </tr> <tr> <td style="padding: 5px;">Seagull</td> <td style="padding: 5px;">8</td> <td style="padding: 5px;">No</td> <td style="padding: 5px;">£699</td> </tr> </tbody> </table>		Caravan name	Sleeps	Decking	Price	Flamingo	2	Yes	£345	Albatross	4	Yes	£529	Penguin	6	Yes	£559	Pelican	4	No	£475	Seagull	8	No	£699
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<p>Which down the name of the caravan that sleeps 4 and has a decking</p> <p style="font-size: 1.5em; color: red; margin-top: 20px;">Albatross</p>	<p>How many caravans sleep 8 people?</p> <p style="font-size: 2em; color: red; margin-top: 20px; text-align: center;">1</p>																								

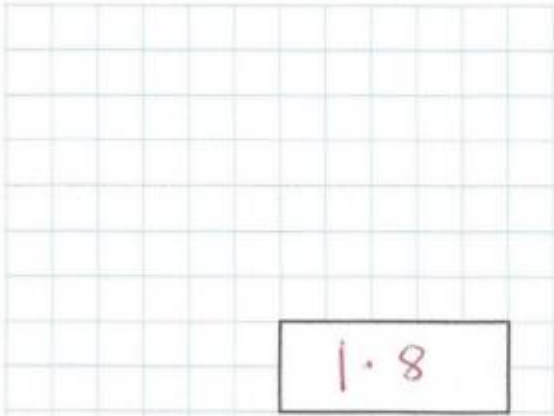
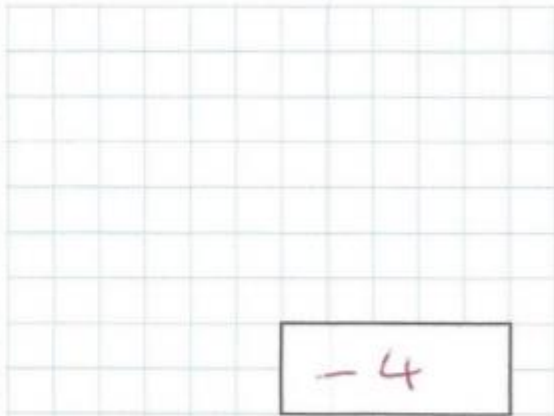





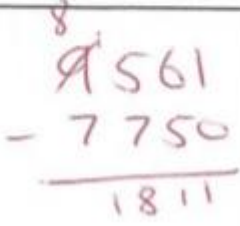
Wednesday

<p>90,000 – 800</p>  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">89200</div>	<p>3500 ÷ 100</p>  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">35</div>								
<p>A song lasts 2 minutes 45 seconds. How long does the song last in seconds?</p> <p style="color: red;">2 × 60 = 120 120 + 45 = 165</p>	 <p style="color: red;">165 seconds</p>								
<table border="1" style="width: 100%;"> <tr> <td>Paris</td> <td>○ ○ ◐</td> </tr> <tr> <td>Cork</td> <td>○ ○ ○</td> </tr> <tr> <td>London</td> <td>○ ◐</td> </tr> <tr> <td>Swansea</td> <td>○ ○ ◐</td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Key    ○ = 4 hours</p> </div>	Paris	○ ○ ◐	Cork	○ ○ ○	London	○ ◐	Swansea	○ ○ ◐	<p>How many hours of sunshine did <b>Paris</b> have?</p> <p style="color: red;">10 hours</p>
Paris	○ ○ ◐								
Cork	○ ○ ○								
London	○ ◐								
Swansea	○ ○ ◐								
<p>Which city had the <b>least</b> amount of sunshine?</p> <p style="color: red; font-size: 1.5em;">London</p>	<p>How many <b>more</b> hours of sunshine did <b>Cork</b> have than <b>Swansea</b>?</p> <p style="color: red; font-size: 1.5em;">12 - 9 = <u>3</u></p>								

Thursday

<p><math>187 + 408 + 620</math></p>  <p>1215</p>	<p><math>16 \times 3 = 4 \times</math> <span style="border: 1px solid black; padding: 2px 10px;">12</span></p>  <p>12</p>
<p>Circle the angle that is obtuse</p> <p>35°    56°    88°    <span style="border: 1px solid red; border-radius: 50%; padding: 2px;">91°</span></p>	
<p>What percentage of the shape is shaded?</p> <p>50%</p>	
<p>Kayleigh has 50 pence, 20 pence and 10 pence pieces.</p> <p>She has 12 of each type of coin.</p> <p>How much money does she have in total?</p> <p>£9.60</p>	 <p> <math>10 \times 12 = 120</math>  <math>20 \times 12 = 240</math>  <math>50 \times 12 = 600</math> </p> <p>960p</p>

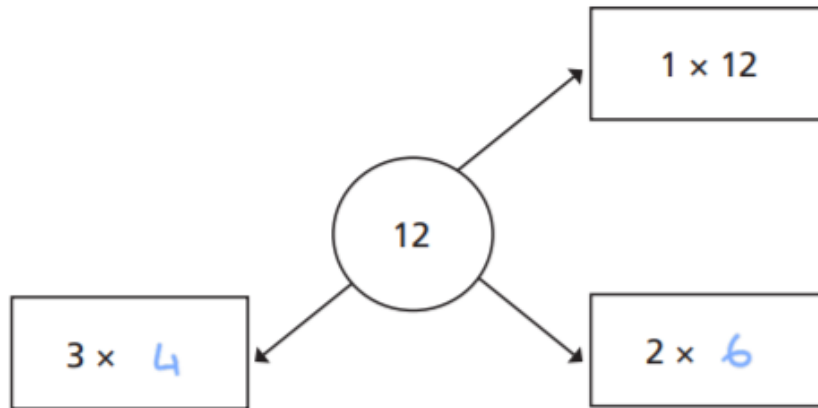
Friday

$0.6 + 0.6 + 0.6$  	$7 - 11$  
<div> <div>Italy 60,656,000 </div> <div>Spain 46,373,068 </div> <div>Turkey 81,252,418 </div> <div>France 65,089,744 </div> <div>Thailand 69,183,173 </div> </div>	<p>Which country has the highest population?</p> <p>Turkey</p>
<p>Which country has the smallest population?</p> <p>Spain</p>	<p>What is the value of the digit 7 in Thailand's population?</p> <p>70</p>
<p>Mr Jenkins has £9,561.</p> <p>He buys a new car that costs £7,750.</p> <p>How much money does he have left?</p> <p>£1811</p>	



Task 2

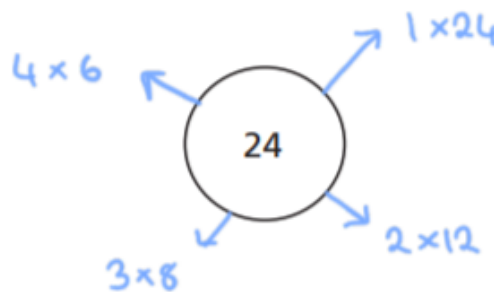
- a) Complete the diagram to show the pairs of numbers that multiply to make 12



List all the factors of 12

1, 2, 3, 4, 6, 12

- b) Draw a similar diagram to show the pairs of numbers that multiply to make 24



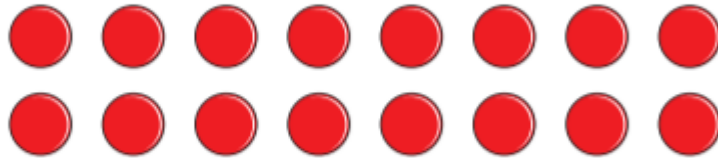
List all the factors of 24

1, 2, 3, 4, 6, 8, 12, 24

2)

Alex arranges 16 counters in different ways.

She is trying to work out some factors.

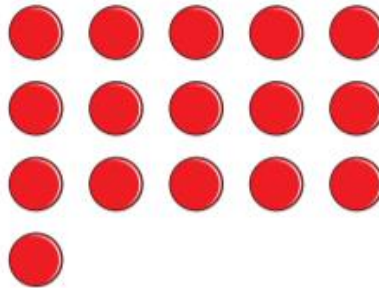


a) Use the array to complete the sentence.

2 and 8 are both factors of 16

3)

1 Alex rearranges the counters.



How does this array show that 5 is not a factor of 16?

The bottom row isn't complete

4)

a) List all the factors of 32

1, 2, 4, 8, 16, 32

b) How can you check that you have found all the factors?

Use counters to arrange 32 in different arrays.

Check against the times tables

Task 3

1)

a) Circle the factors of 30

5 15 25 3 30 4 2 12 60 0

b) These numbers are all factors of a 2-digit number.

1 3 5 9

What could the number be?

45

2)

Amir and Eva are describing numbers using factors.



Amir

The number 11 does not have any factors.

My number lies between 20 and 25. It only has two factors.



Eva

a) Is Amir correct? No

Explain your answer.

$1 \times 11 = 11$  so 1 and 11 are factors

b) What number is Eva thinking of?

23

Which number has the most factors? Tick your answer.

3)

64

48

4)

2 and 5 are factor pairs of 10. True or false?

T

3 and 6 are factors of 15. True or false?

F

7 and 2 are factor pairs of 72. True or false?

F

10 and 3 are factor pairs of 30. True or false?

T

5)

1) Is this statement always, sometimes or never true?

A number will always have an even number of factors because factors come in factor pairs.

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Task 3- Answers

1)

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

prime numbers

not abundant numbers

perfect numbers

abundant numbers

There are twenty two abundant numbers on our 100 square.

2)

How do we know that these statements are true?

a) 5 is a factor of 195 but not a factor of 196

195 ends in 5 so 5 is a factor. 196 is one  
more than a multiple of 5 so 5 isn't a factor.

b) 3 is a factor of 177 but not a factor of 178

1+7+7=15 15 is a multiple of 3 so 3  
is a factor of 177 therefore not a factor of 178

c) 20 is a factor of 180 but not a factor of 190

180 ÷ 20 = 9 190 is 10 more than 180  
so 20 can't be a factor.