

Near multiples

Mental addition and subtraction

$4580 + 205 =$

$4783 - 480 =$

$7845 - 1999 =$

$8040 + 508 =$

$4723 + 402 =$

$7935 - 298 =$

$45,237 + 3900 =$

$3425 + 399 =$

$9768 - 2995 =$

$87,532 - 29,999 =$

$64,378 + 3001 =$

$7845 - 199 =$

$5298 - 999 =$

$4658 - 97 =$

$3458 + 1997 =$

$54,879 - 495 =$

$4578 + 321 =$

$8572 - 502 =$

Adding decimals

Add/subtract mentally

$67.8 + 35.9 =$

$45.8 + 26.7 =$

$47.4 + 8.7 =$

$34.5 + 27.3 =$

$3.78 + 21.8 =$

$62.7 + 23.5 =$

$24.8 + 43.9 =$

$46.7 + 25.5 =$

$47.8 + 34.4 =$

$3.1 - 2.1 =$

$11.1 - 7.7 =$

$13 - 4.3 =$

$5.3 - 4.3 =$

$1.2 - 0.7 =$

$7 - 1.9 =$

$8.8 - 6.5 =$

$10 - 2.6 =$

$9.6 - 7.4 =$



Written method

NO REGROUPING

$$\begin{array}{r} 1) \quad \$15.24 \\ + \quad \$23.45 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad \$71.05 \\ + \quad \$15.33 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad \$52.27 \\ + \quad \$21.22 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad \$83.15 \\ + \quad \$4.33 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad \$64.27 \\ + \quad \$13.51 \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad \$22.44 \\ + \quad \$51.30 \\ \hline \end{array}$$

$$\begin{array}{r} 7) \quad \$41.73 \\ + \quad \$44.25 \\ \hline \end{array}$$

$$\begin{array}{r} 8) \quad \$83.36 \\ + \quad \$12.51 \\ \hline \end{array}$$

$$\begin{array}{r} 9) \quad \$36.64 \\ + \quad \$23.22 \\ \hline \end{array}$$

WITH REGROUPING

$$\begin{array}{r} 10) \quad \$74.68 \\ + \quad \$18.17 \\ \hline \end{array}$$

$$\begin{array}{r} 11) \quad \$58.42 \\ + \quad \$29.46 \\ \hline \end{array}$$

$$\begin{array}{r} 12) \quad \$75.19 \\ + \quad \$37.35 \\ \hline \end{array}$$

$$\begin{array}{r} 13) \quad \$29.56 \\ + \quad \$15.25 \\ \hline \end{array}$$

$$\begin{array}{r} 14) \quad \$79.61 \\ + \quad \$44.23 \\ \hline \end{array}$$

$$\begin{array}{r} 15) \quad \$57.39 \\ + \quad \$15.37 \\ \hline \end{array}$$

$$\begin{array}{r} 16) \quad \$15.78 \\ + \quad \$22.09 \\ \hline \end{array}$$

$$\begin{array}{r} 17) \quad \$56.49 \\ + \quad \$38.63 \\ \hline \end{array}$$

$$\begin{array}{r} 18) \quad \$82.08 \\ + \quad \$65.75 \\ \hline \end{array}$$

1)	$\begin{array}{r} 6.928 \\ - 2.365 \\ \hline \end{array}$	2)	$\begin{array}{r} 78.07 \\ - 43.55 \\ \hline \end{array}$	3)	$\begin{array}{r} 91.24 \\ - 85.76 \\ \hline \end{array}$	4)	$\begin{array}{r} 670.2 \\ - 158.8 \\ \hline \end{array}$
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5)	$\begin{array}{r} 5.037 \\ - 2.475 \\ \hline \end{array}$	6)	$\begin{array}{r} 71.25 \\ - 67.89 \\ \hline \end{array}$	7)	$\begin{array}{r} 30.37 \\ - 9.75 \\ \hline \end{array}$	8)	$\begin{array}{r} 67.2 \\ - 38.45 \\ \hline \end{array}$
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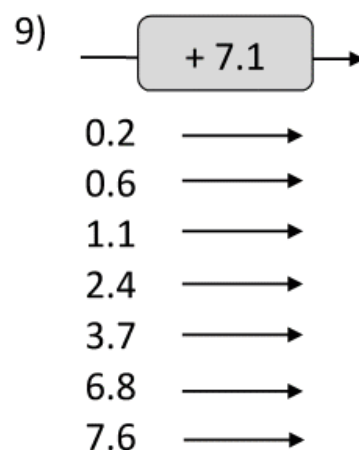
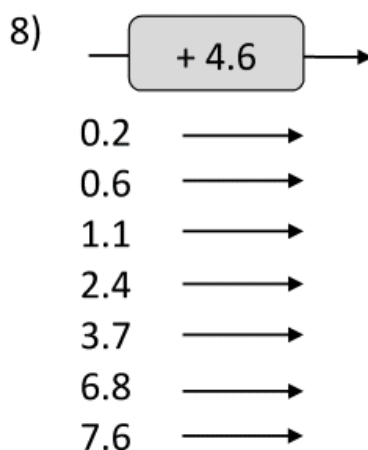
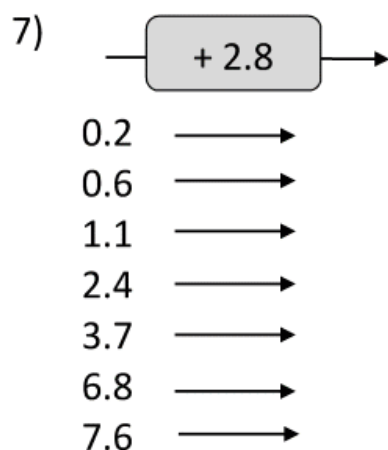
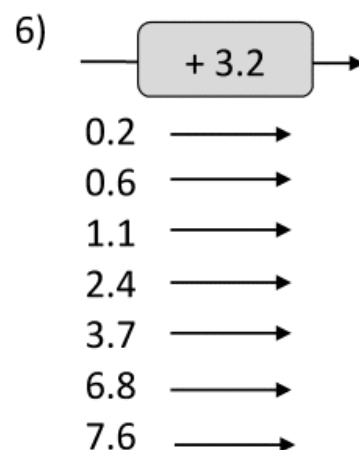
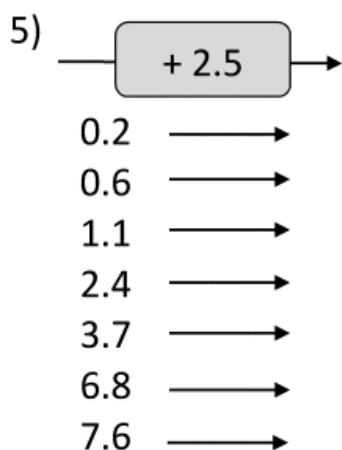
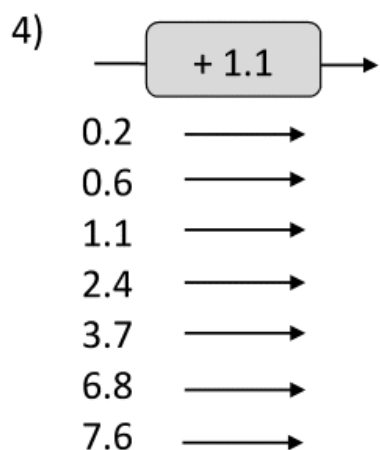
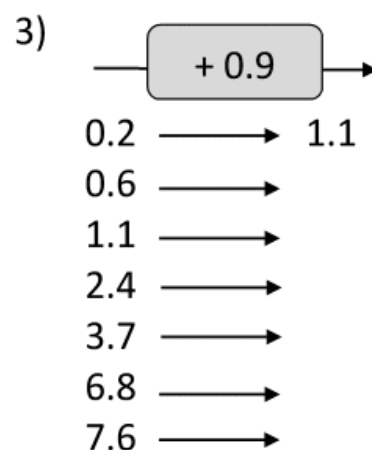
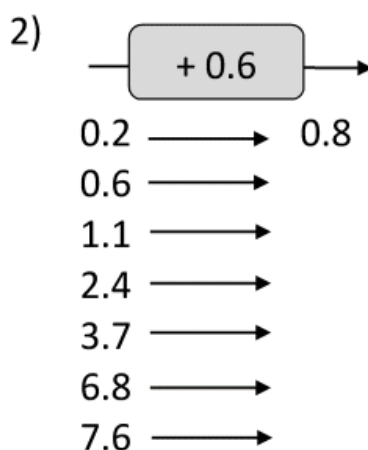
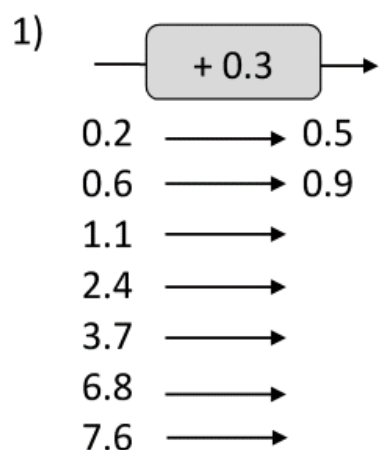
9)	$\begin{array}{r} 4.172 \\ - 0.684 \\ \hline \end{array}$	10)	$\begin{array}{r} 62.90 \\ - 37.67 \\ \hline \end{array}$	11)	$\begin{array}{r} 8.730 \\ - 2.266 \\ \hline \end{array}$	12)	$\begin{array}{r} 651.6 \\ - 281.3 \\ \hline \end{array}$
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13)	$\begin{array}{r} 8.403 \\ - 1.675 \\ \hline \end{array}$	14)	$\begin{array}{r} 572.1 \\ - 485.3 \\ \hline \end{array}$	15)	$\begin{array}{r} 79.83 \\ - 54.61 \\ \hline \end{array}$	16)	$\begin{array}{r} 972.8 \\ - 565.4 \\ \hline \end{array}$
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17)	$\begin{array}{r} 7.021 \\ - 4.968 \\ \hline \end{array}$	18)	$\begin{array}{r} 8.38 \\ - 3.725 \\ \hline \end{array}$	19)	$\begin{array}{r} 40.08 \\ - 28.76 \\ \hline \end{array}$	20)	$\begin{array}{r} 6.731 \\ - 3.482 \\ \hline \end{array}$
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21)	$\begin{array}{r} 4.506 \\ - 2.758 \\ \hline \end{array}$	22)	$\begin{array}{r} 92.7 \\ - 16.49 \\ \hline \end{array}$	23)	$\begin{array}{r} 80.02 \\ - 36.8 \\ \hline \end{array}$	24)	$\begin{array}{r} 7.206 \\ - 4.564 \\ \hline \end{array}$
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Have a look at these number machines and use your decimal knowledge to fill in the missing numbers. Remember 10 tenths = 1 one (or 1 whole).



Decimal challenge 3

Work out the missing numbers in these decimal additions.

$$\begin{array}{r} 1) \quad \begin{array}{|c|c|c|c|} \hline 3 & 2 & . & \\ \hline + & 4 & . & 8 \\ \hline 4 & & . & 9 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 2) \quad \begin{array}{|c|c|c|c|c|} \hline 5 & & . & 3 & 1 \\ \hline + & 1 & 4 & . & \\ \hline & & 5 & . & 5 & 8 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 3) \quad \begin{array}{|c|c|c|c|c|} \hline 6 & 4 & & . & 2 \\ \hline + & 2 & 3 & . & 6 \\ \hline 8 & & 7 & . & \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 4) \quad \begin{array}{|c|c|c|c|} \hline 4 & 6 & . & \\ \hline + & 1 & . & 3 \\ \hline 5 & & . & 1 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 5) \quad \begin{array}{|c|c|c|c|c|} \hline 6 & & . & 4 & 0 \\ \hline + & 2 & 3 & . & 7 \\ \hline & 6 & . & & 7 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 6) \quad \begin{array}{|c|c|c|c|c|} \hline 3 & 7 & 1 & . & \\ \hline + & 5 & & . & 7 \\ \hline 6 & & 4 & . & 9 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 7) \quad \begin{array}{|c|c|c|c|} \hline 2 & 0 & . & \\ \hline + & 7 & . & 3 \\ \hline 3 & & . & 3 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 8) \quad \begin{array}{|c|c|c|c|c|} \hline 7 & 1 & . & 3 & 5 \\ \hline + & 7 & . & & 6 \\ \hline 1 & 2 & . & 5 & \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 9) \quad \begin{array}{|c|c|c|c|c|} \hline & 4 & & . & 5 \\ \hline + & 3 & 0 & 1 & . & 8 \\ \hline 1 & 1 & & 8 & . & \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 10) \quad \begin{array}{|c|c|c|c|} \hline & 1 & . & 3 \\ \hline + & 7 & 5 & . \\ \hline 1 & 2 & . & 2 \\ \hline \end{array} \end{array}$$

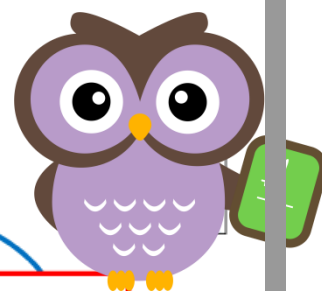
$$\begin{array}{r} 11) \quad \begin{array}{|c|c|c|c|c|} \hline 7 & & . & 4 & \\ \hline + & 8 & . & 3 & 6 \\ \hline 1 & 1 & 5 & . & 8 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 12) \quad \begin{array}{|c|c|c|c|c|} \hline 9 & 7 & . & 1 \\ \hline + & 6 & 5 & . & 5 \\ \hline 1 & 8 & 1 & . & \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 13) \quad \begin{array}{|c|c|c|c|} \hline 4 & 1 & . & 4 \\ \hline + & 2 & . & \\ \hline + & 5 & 2 & . & 7 \\ \hline & & 9 & . & 2 \\ \hline \end{array} \end{array}$$

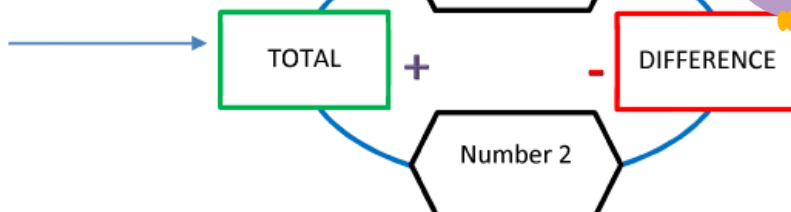
$$\begin{array}{r} 14) \quad \begin{array}{|c|c|c|c|c|} \hline 4 & 3 & . & 7 & \\ \hline + & 7 & . & 0 & 6 \\ \hline + & 6 & 2 & . & 0 \\ \hline & 4 & . & 0 & 8 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} 15) \quad \begin{array}{|c|c|c|c|c|} \hline 2 & 0 & 5 & . & 7 \\ \hline + & 5 & 7 & . & 2 \\ \hline + & 7 & 1 & . & 8 \\ \hline & 6 & 5 & . & \\ \hline \end{array} \end{array}$$

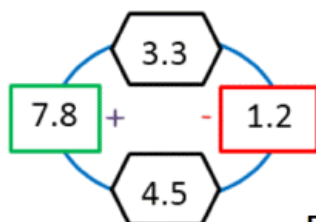


TOTAL DIFFERENCE PUZZLE 5A

This is how the puzzle works!



Example



Fill in the missing numbers in the puzzles below!

1) Circle the numbers below which are multiples of 20:

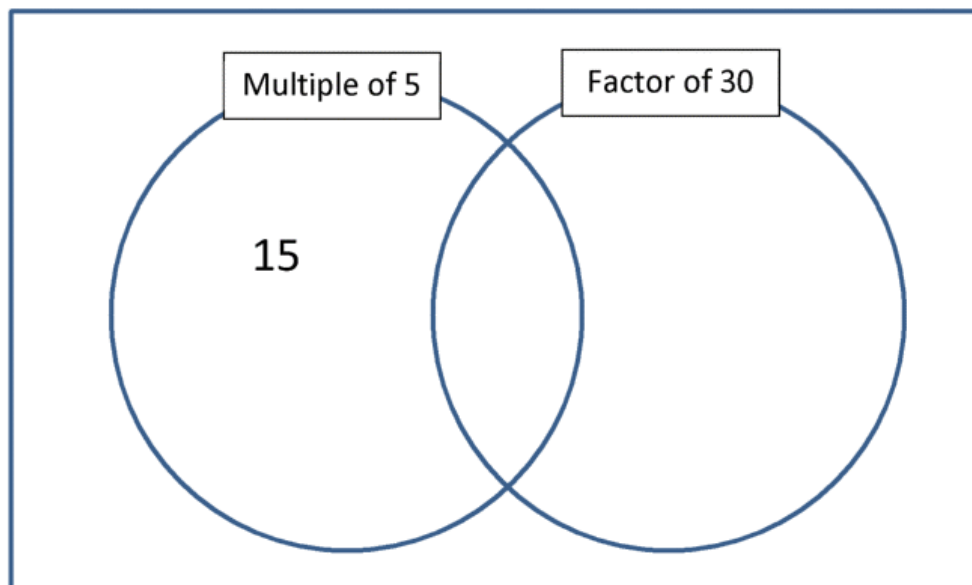
5 100 20 140 150 10

2) Circle the numbers below which are factors of 32:

1 12 8 2 96 16 64

3) Put the numbers in the correct place in the Venn diagram below.

1	10	35	12	2	15	3	60	5
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3) Write another number in the venn diagram which is both a multiple of 5 and a factor of 30.

4) Which of the numbers below are prime numbers?

24 13 21 28 3 11

multiply 2 digit number by 2 digit number

$$\begin{array}{r} 1) \quad 52 \\ \times 35 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 61 \\ \times 27 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 28 \\ \times 56 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 72 \\ \times 17 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 57 \\ \times 35 \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad 48 \\ \times 26 \\ \hline \end{array}$$

$$\begin{array}{r} 7) \quad 93 \\ \times 14 \\ \hline \end{array}$$

$$\begin{array}{r} 8) \quad 53 \\ \times 46 \\ \hline \end{array}$$

$$\begin{array}{r} 9) \quad 82 \\ \times 35 \\ \hline \end{array}$$

$$\begin{array}{r} 10) \quad 49 \\ \times 17 \\ \hline \end{array}$$

$$\begin{array}{r} 11) \quad 64 \\ \times 47 \\ \hline \end{array}$$

$$\begin{array}{r} 12) \quad 39 \\ \times 66 \\ \hline \end{array}$$

Multiplying by tenths

$0.6 \times 3 = \underline{\quad}$

$0.2 \times 9 = \underline{\quad}$

$3 \times 0.7 = \underline{\quad}$

$4 \times 0.8 = \underline{\quad}$

$7 \times 0.6 = \underline{\quad}$

$5 \times 0.9 = \underline{\quad}$

$4 \times 0.4 = \underline{\quad}$

$6 \times 0.8 = \underline{\quad}$

$0.9 \times 7 = \underline{\quad}$

$0.8 \times 8 = \underline{\quad}$

$0.5 \times \underline{\quad} = 3.5$

$\underline{\quad} \times 7 = 1.4$

$\underline{\quad} \times 3 = 1.8$

$0.4 \times \underline{\quad} = 1.2$

$0.7 \times \underline{\quad} = 5.6$

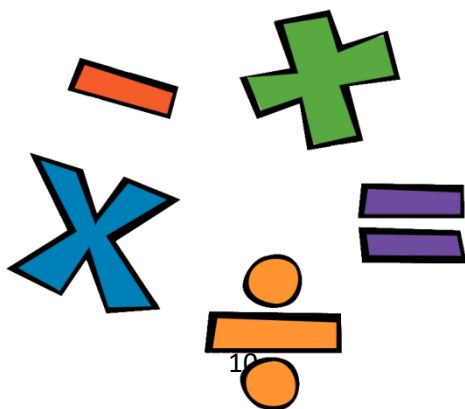
$\underline{\quad} \times 0.3 = 2.4$

$0.2 \times \underline{\quad} = 1.4$

$\underline{\quad} \times 8 = 4.0$

$\underline{\quad} \times 6 = 3.6$

$0.7 \times \underline{\quad} = 6.3$



dividing 3 digit number by a single digit number

1) $2 \overline{) 426}$

2) $3 \overline{) 132}$

3) $4 \overline{) 108}$

4) $3 \overline{) 246}$

5) $2 \overline{) 564}$

6) $5 \overline{) 135}$

7) $4 \overline{) 152}$

8) $3 \overline{) 342}$







9) $4 \overline{) 532}$

10) $2 \overline{) 646}$

11) $3 \overline{) 381}$

12) $4 \overline{) 608}$

division problems

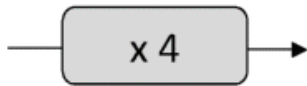
1) 119 children get into teams of 4. How many teams of 4 can they make? How many children will not be in a team of 4?		
2) It takes the Earth 24 hours to spin once on its axis. How many complete spins can it make in 100 hours?		
3) A school bus can carry 50 children. How many buses are needed to transport 237 children?		
4) A piece of rope is 100m long. How many 7m long pieces can I cut from it?		
5) Captain has 150 gold coins which he shares out between his crew of 9. He takes the remainder of the coins himself. How many coins does each member get? How many coins does Captain get?		
6) How many complete weeks in 131 days?		

Try halving these numbers using this idea:

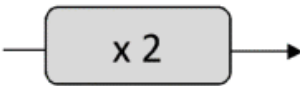
444 =	264 =	856 =
486 =	476 =	904 =
428 =	664 =	294 =
476 =	364 =	298 =
456 =	254 =	746 =

multiplying multiples of 10 and 100

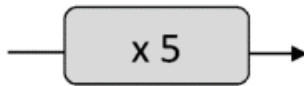
Have a look at these number machines and use your multiplication knowledge to fill in the missing numbers. Remember if $3 \times 4 = 12$, then $3 \times 40 = 120$ and $3 \times 400 = 1200$.

1) 

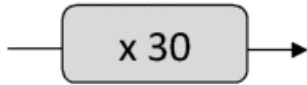
300 \longrightarrow 1200
40 \longrightarrow 160
800 \longrightarrow _____
60 \longrightarrow _____
90 \longrightarrow _____
500 \longrightarrow _____
200 \longrightarrow _____

2) 

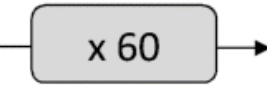
300 \longrightarrow 600
40 \longrightarrow _____
800 \longrightarrow _____
60 \longrightarrow _____
90 \longrightarrow _____
500 \longrightarrow _____
200 \longrightarrow _____

3) 

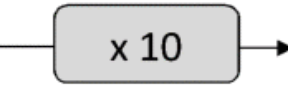
300 \longrightarrow 1500
40 \longrightarrow _____
800 \longrightarrow _____
60 \longrightarrow _____
90 \longrightarrow _____
500 \longrightarrow _____
200 \longrightarrow _____

4) 

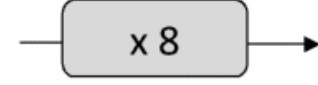
4 \longrightarrow _____
50 \longrightarrow _____
7 \longrightarrow _____
30 \longrightarrow _____
80 \longrightarrow _____
9 \longrightarrow _____
60 \longrightarrow _____

5) 

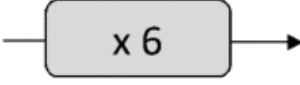
4 \longrightarrow _____
50 \longrightarrow _____
7 \longrightarrow _____
30 \longrightarrow _____
80 \longrightarrow _____
9 \longrightarrow _____
60 \longrightarrow _____

6) 

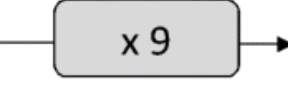
4 \longrightarrow _____
50 \longrightarrow _____
7 \longrightarrow _____
30 \longrightarrow _____
80 \longrightarrow _____
9 \longrightarrow _____
60 \longrightarrow _____

7) 

50 \longrightarrow _____
300 \longrightarrow _____
80 \longrightarrow _____
200 \longrightarrow _____
700 \longrightarrow _____
40 \longrightarrow _____
800 \longrightarrow _____

8) 

50 \longrightarrow _____
300 \longrightarrow _____
80 \longrightarrow _____
200 \longrightarrow _____
700 \longrightarrow _____
40 \longrightarrow _____
800 \longrightarrow _____

9) 

50 \longrightarrow _____
300 \longrightarrow _____
80 \longrightarrow _____
200 \longrightarrow _____
700 \longrightarrow _____
40 \longrightarrow _____
800 \longrightarrow _____

multiplication problem

1) The cruising speed of a Boeing 747 is about 570 miles per hour. How far would it travel at this speed in 4 hours?



2) A mile is about 1610 meters. How many meters in 3 miles?

3) Calculators come in boxes of 24. A school orders 13 boxes. How many calculators will the school get?

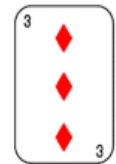


4) A sailfish can swim at a top speed of 68 miles per hour. How fast can 5 sailfish swim?

Trick problem



5) There are about 80 words on a page of Captain's Sea Stories book. If the book has 31 pages, about how many words are there in total?



6) A pack of cards contains 52 cards. How many cards in 12 packs?

7) A recordable DVD can record up to 120 minutes. How many minutes can a box of 20 DVDs record for?



Your challenge is to place the digits in the correct place to make an answer of 30 each time.

CHALLENGE A:

Use the digits 7, 9 and 3

$$\underline{\quad} \times \underline{\quad} + \underline{\quad}$$

CHALLENGE B:

Use the digits 2, 4 and 7

$$\underline{\quad} + \underline{\quad} \times \underline{\quad}$$

CHALLENGE C:

Use the digits 6, 9 and 4

$$\underline{\quad} \times \underline{\quad} - \underline{\quad}$$

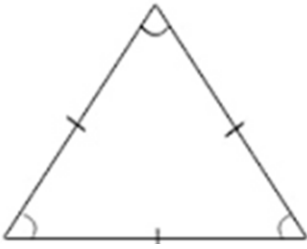
CHALLENGE D:

Use the digits 2, 7, 4, 1

$$\underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$$



Match

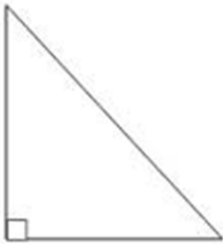


Right angle

No equal sides

And

No equal angles

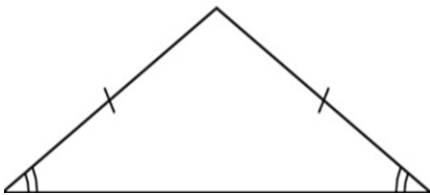


Scalene

No equal sides

And

No equal angles

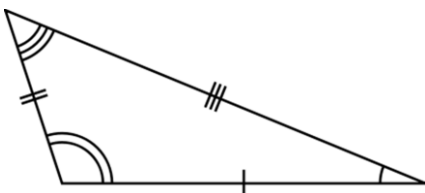


Equilateral

2 equal sides

And

2 equal angles



Isosceles

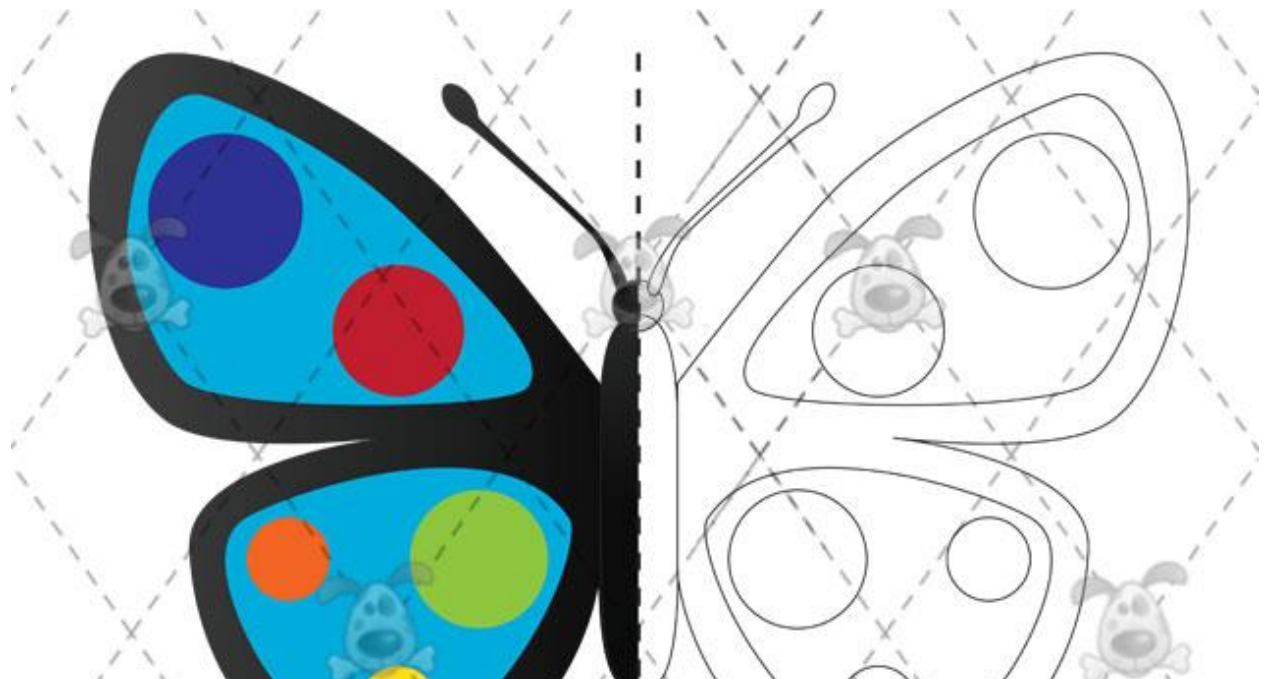
Has 1 right angle

Symmetry

Is when one shape becomes exactly like another if you flip, slide or turn it.

- 1. The simplest type of symmetry is “Reflection symmetry”.
(*Sometimes called Line or Mirror*)Symmetry .It is easy to see because one half is the reflection of the other half.*

✿ *Color the reflection symmetry of the butterfly*

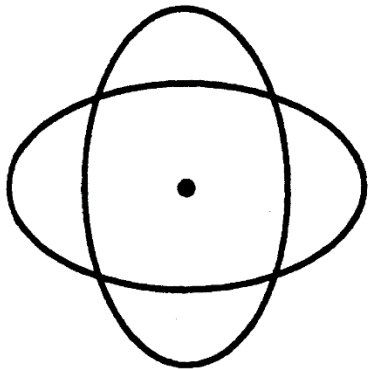


2. Rotational symmetry

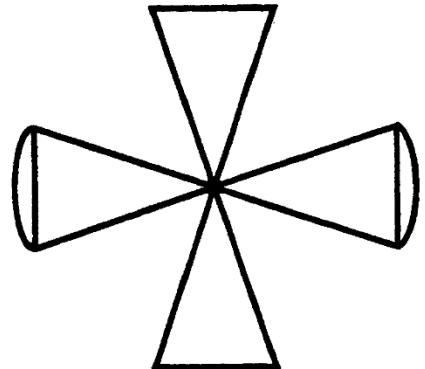
With Rotational Symmetry, the image is rotated (around a central point) so that it appears 2 or more times. How many times it appears is called the Order.

✱ *Use tracing paper to determine the order of rotational symmetry of each of the following shapes.*

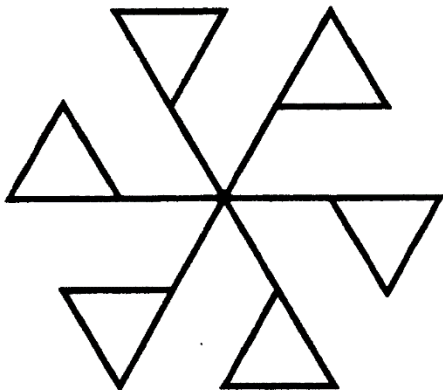
(1)



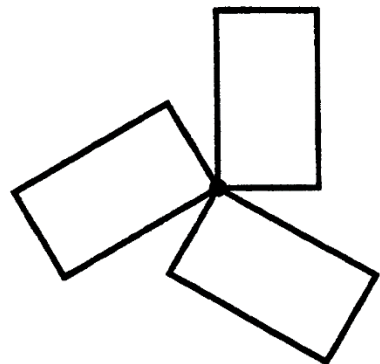
(3)



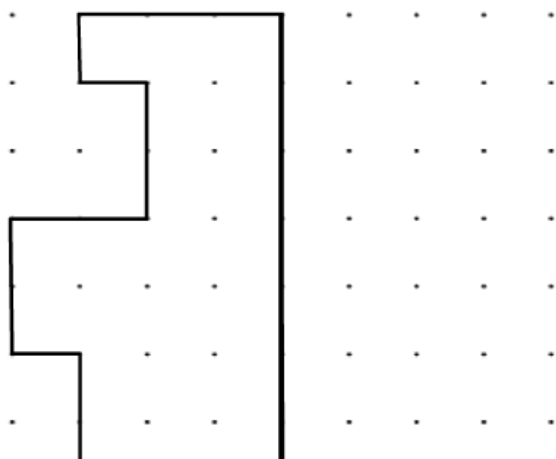
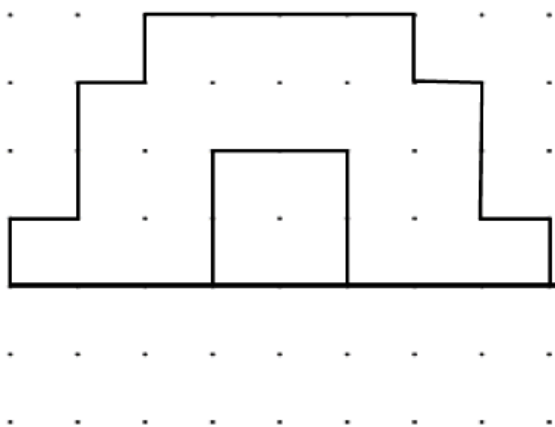
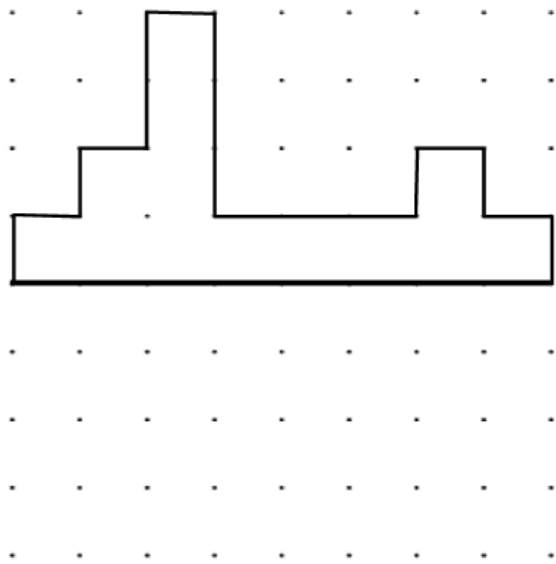
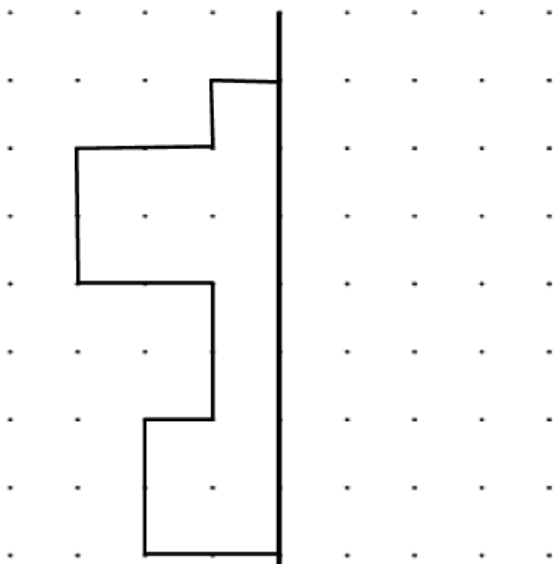
(2)



(4)



Complete the missing half of each of the shapes using the mirror lines.





Identifying Lines

Name: _____

Use 'parallel', 'perp'(perpendicular) or 'inter'(intersecting) to describe the lines.

Answers

1)



2)



3)



4)



5)



6)



7)



8)



9)



10)



11)



12)



13)



14)

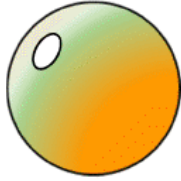
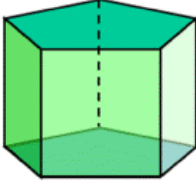
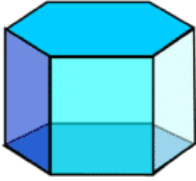
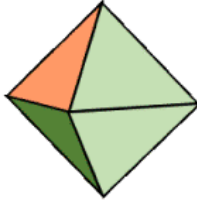
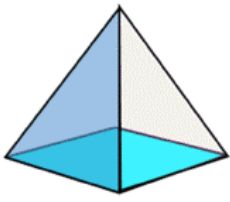
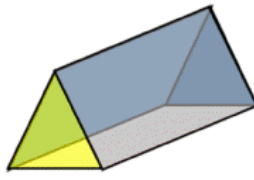

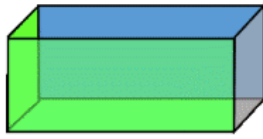
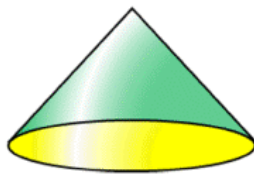
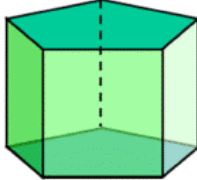
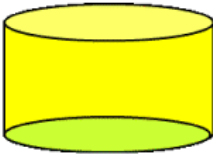
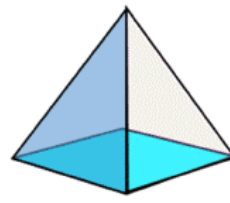
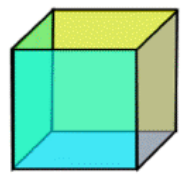
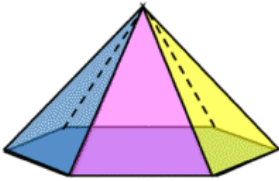
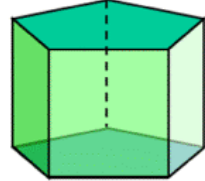


15)



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

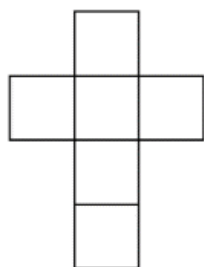
Find the correct shape from the 3 possibilities.

<p>Faces: 8</p> <p>Edges: 18</p> <p>Vertices: 12</p>			
<p>Faces: 5</p> <p>Edges: 8</p> <p>Vertices: 5</p>			
<p>Faces: 6</p> <p>Edges: 12</p> <p>Vertices: 8</p>			
<p>Faces: 7</p> <p>Edges: 15</p> <p>Vertices: 10</p>			
<p>Faces: 7</p> <p>Edges: 12</p> <p>Vertices: 7</p>			

Use the grid below to draw 4 more cubes of different sizes.

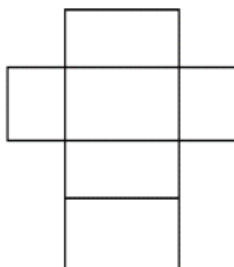


Nets



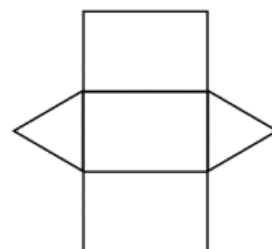
Cube

Faces: 6
Edges: 12
Vertices: 8



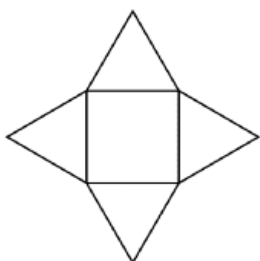
Cuboid

Faces: 6
Edges: 12
Vertices: 8



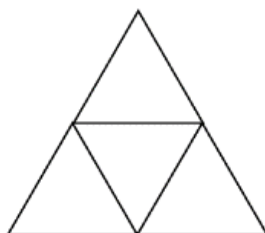
Triangular Prism

Faces: 5
Edges: 9
Vertices: 6



Square-based Pyramid

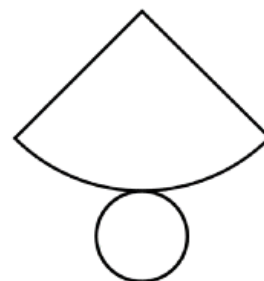
Faces: 5
Edges: 8
Vertices: 5



Tetrahedron

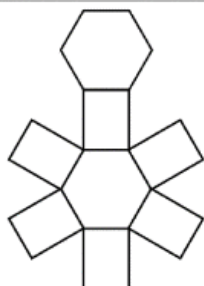
(Triangular-based Pyramid)

Faces: 4
Edges: 6
Vertices: 4



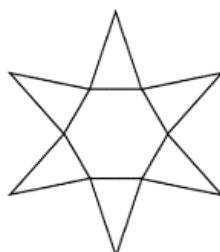
Cone

Faces: 2
Edges: 1
Vertices: 0 or 1



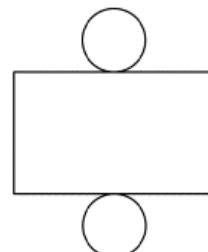
Hexagonal Prism

Faces: 8
Edges: 18




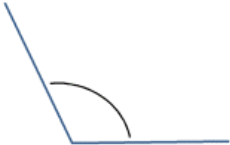


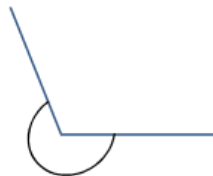
Hexagonal Pyramid

Faces: 7
Edges: 12



Cylinder

Faces: 3
Edges: 2

				
Acute $< 90^\circ$	Obtuse $> 90^\circ$	Right $= 90^\circ$	Straight $= 180^\circ$	Reflex $> 180^\circ$

For each angle, write down whether it is **right**, **acute**, **obtuse**, **reflex** or **straight**.

Use a protractor to measure the angles below.

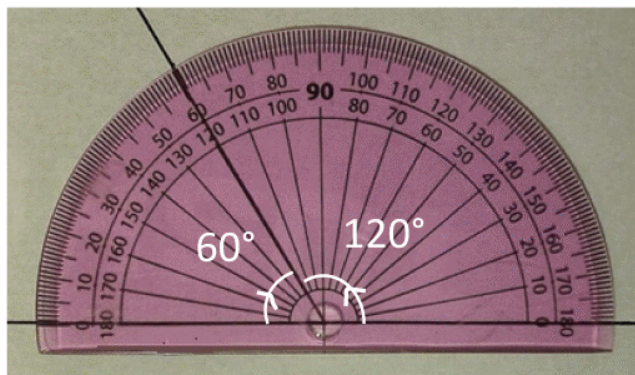
Make sure you read from the correct scale of your protractor. Remember the line you are measuring from must be on one of the zero lines of the protractor.

Example

A

The angle on the left hand side is equal to 60° . We are measuring from 0° using the **outer** scale.

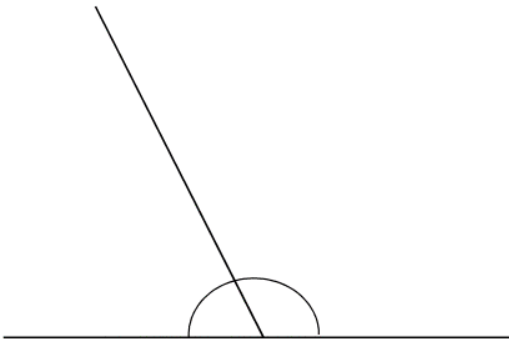
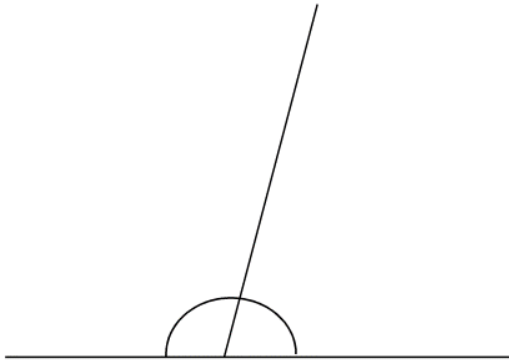
The angle of the right hand side is equal to 120° . We are measuring from 0° using the **inner** scale.

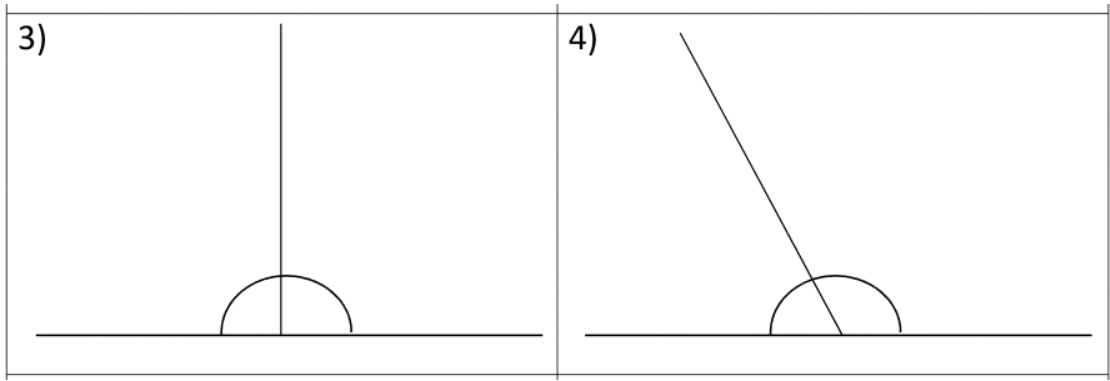


A

Measure the following angles. Remember, the two angles should add up to 180° because they are in a straight line!

A

<p>1)</p> 	<p>2)</p> 
---	--



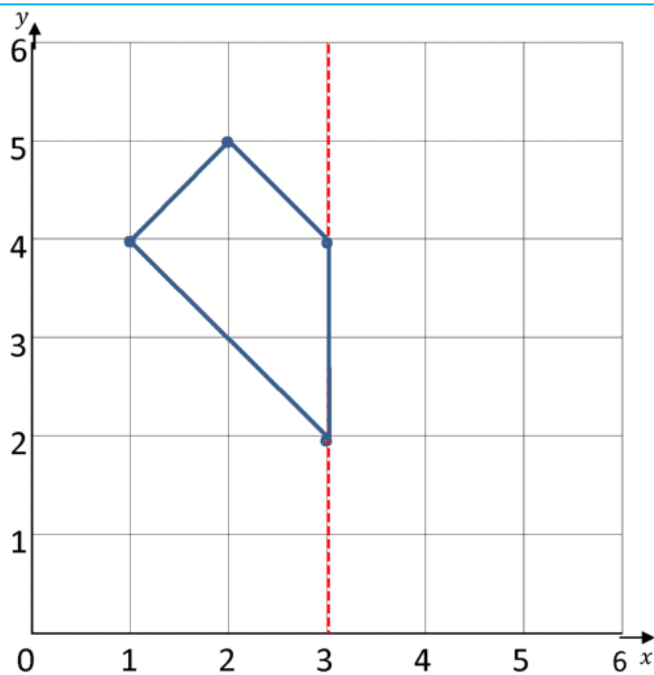
Work out the missing angles. Remember that the angle in a straight line is equal to 180° . The angles are not drawn to scale, so do not try to measure them!

Reflect and plot

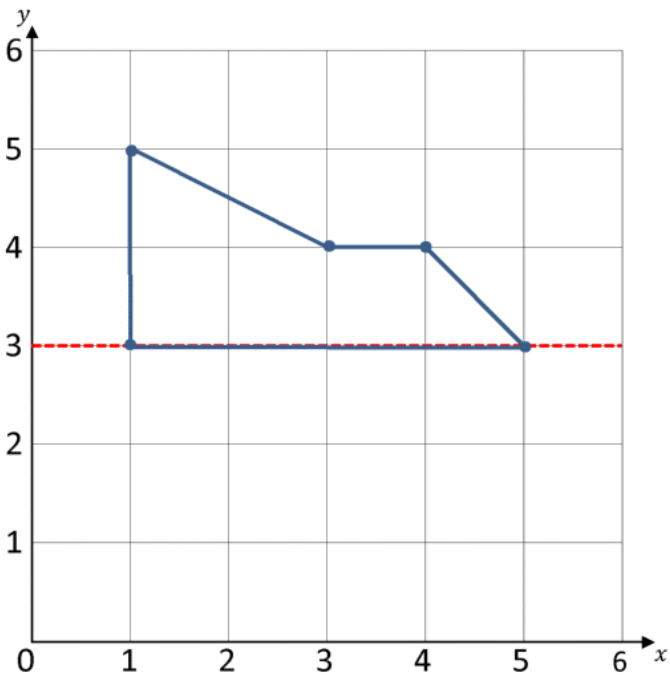
1)

2)

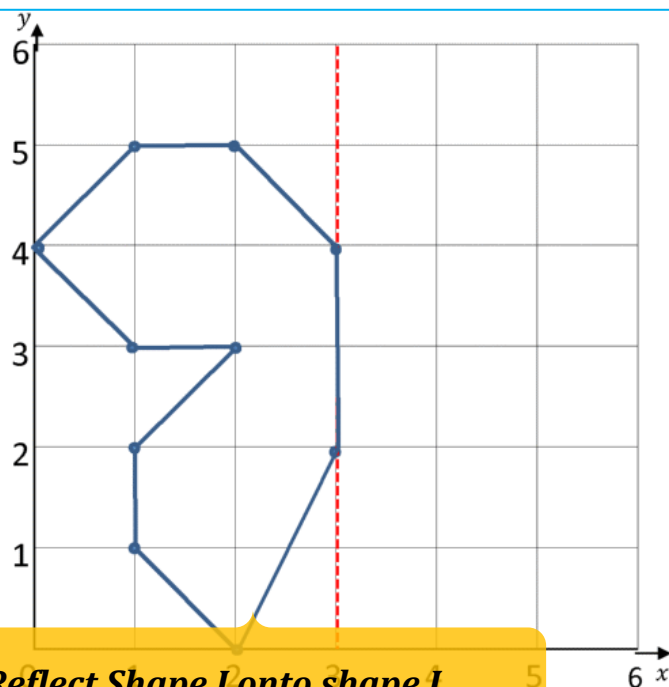
50°



1) Reflect this shape in the mirror line and write down the new coordinates.

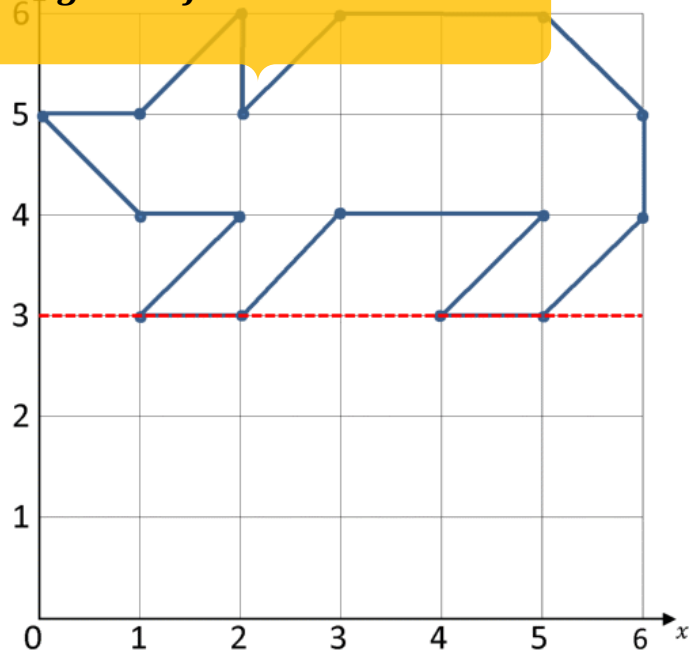


2) Reflect this shape in the mirror line and write down the new coordinates.



Reflect Shape I onto shape J using the reflection line.

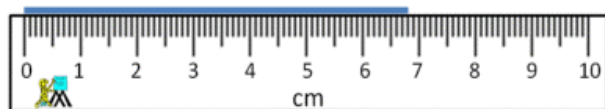
1) Reflect this shape in the mirror line and write down the new coordinates.



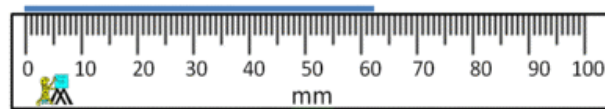
2) Reflect this shape in the mirror line and write down the new coordinates.

Use your knowledge of fraction and the number system to work out these measurements. Remember to write down the units of measurement.

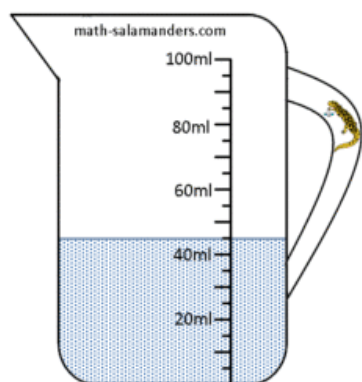
1) How long? _____



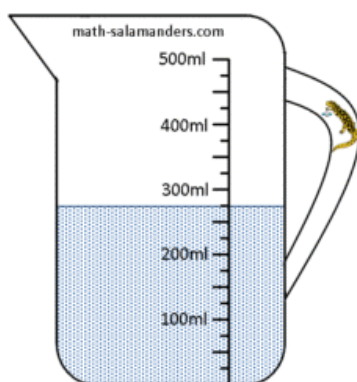
2) How long? _____



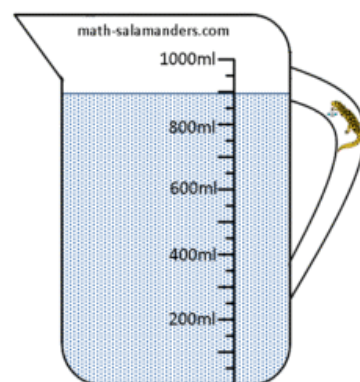
3) How much? _____



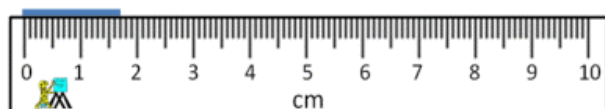
4) How much? _____



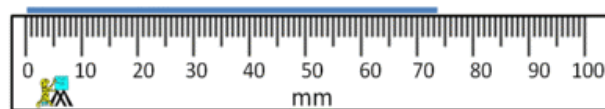
5) How much? _____



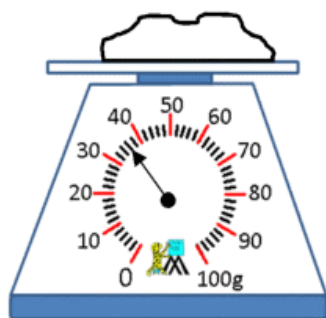
6) How long? _____



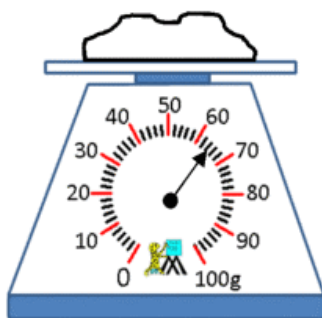
7) How long? _____



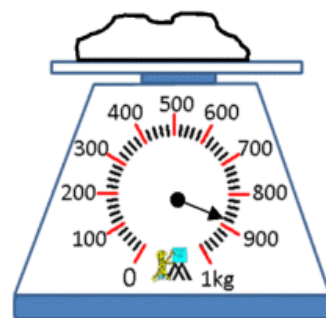
8) How heavy? _____



9) How heavy? _____



















10) How heavy? _____



Time

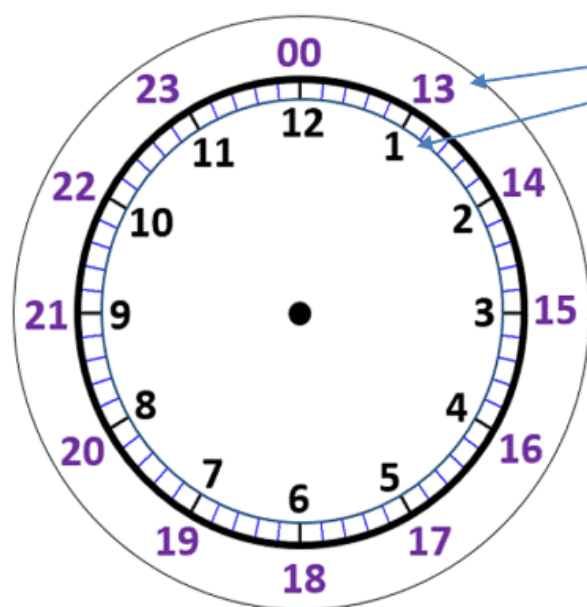
Write the correct analogue time underneath each clock. The first one has been done for you.

			
5 past 2	past	past	to
			
			
			

The 24 hour clock does not have am and pm times.

To change an am time to a 24 hour time, you don't need to do anything unless it is 12am in which case the hour changes to 00. Add a zero before a single digit hour.

To change a pm time to a 24 hour time, just add 12 to the hour, unless it is 12pm. If the hour is 12pm then it does not change.



1:00pm becomes 13:00 in 24 hour time.

Examples

9:05am is 09:05 9:05pm is 21:05

7:27am is 07:27 7:27pm is 19:27

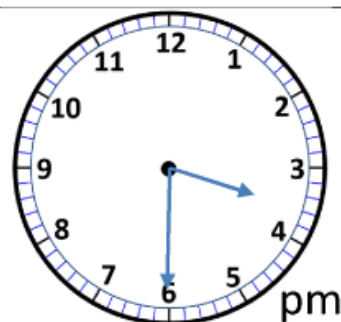
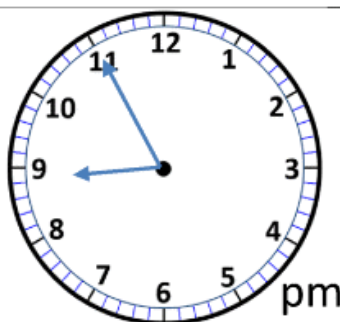
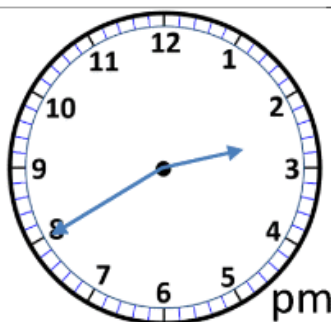
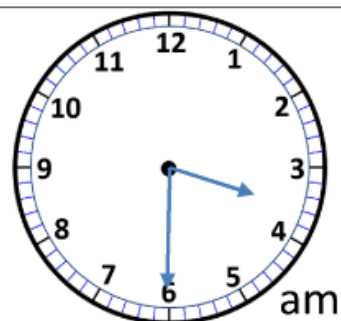
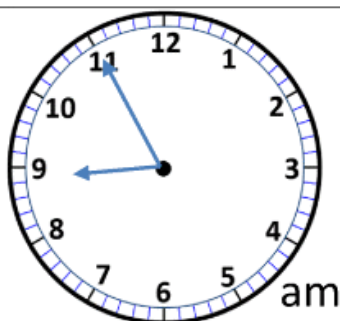
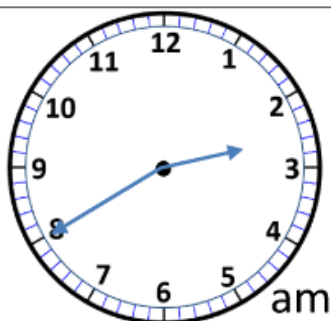
12:10am is 00:10 12:10pm is 12:10

Convert these times into 24 hour clock times.

12 hour	24 hour
4:25am	
9:20am	
2:55am	
11:35am	
1:07am	
12:42am	
6:13am	

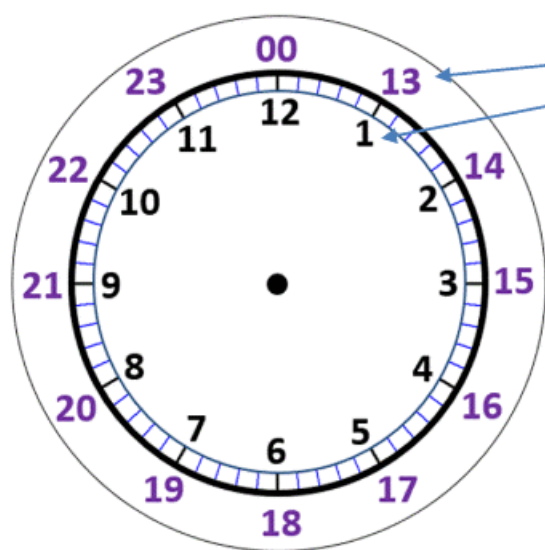
12 hour	24 hour
4:25pm	
9:20pm	
2:55pm	
11:35pm	
1:07pm	
12:42pm	
6:13pm	

2) Convert the times on these clock faces into 24 hour clock times.



To convert a 24 hour time to a 12 hour time, follow the simple steps below:

- If the hour is exactly 12, then simply label it as a pm time.
- If the hour is 00, then change it to 12 and label it as an am time.
- If the hour is greater than 12, then simply subtract 12 from the hour and label it as a pm time.
- Otherwise, simply label it as an am time and take away any leading zeroes.



13:00 becomes 1pm when we subtract 12 from the hour.

Examples

22:30 becomes 10:30pm

06:45 becomes 6:45am

12:32 becomes 12:32pm

00:17 becomes 12:17am

Convert these 24 hour times into am and pm times.

24 hour	12 hour
13:25	1:25pm
10:50	
16:41	
05:37	
12:10	
09:29	
17:02	

24 hour	12 hour
18:53	
22:05	
07:54	
00:17	
02:50	
21:12	
23:46	

January 2016						
S	M	T	W	T	F	S
					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						

February 2016						
S	M	T	W	T	F	S
	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					

March 2016						
S	M	T	W	T	F	S
		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		

April 2016						
S	M	T	W	T	F	S
					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

May 2016						
S	M	T	W	T	F	S
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				

June 2016						
S	M	T	W	T	F	S
			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		

July 2016						
S	M	T	W	T	F	S
					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						

August 2016						
S	M	T	W	T	F	S
	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			

September 2016						
S	M	T	W	T	F	S
				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	

October 2016						
S	M	T	W	T	F	S
						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					

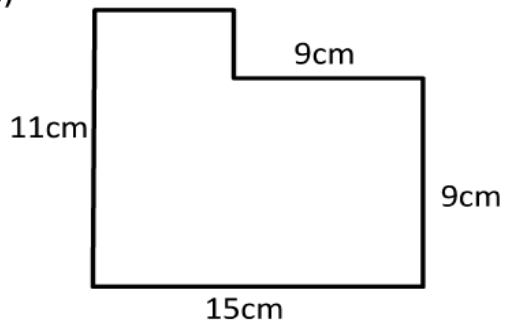
November 2016						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December 2016						
S	M	T	W	T	F	S
				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

- 1) Mother's Day and Father's Day are celebrated on the second Sunday of May and on the third Sunday of June respectively. When is Mother's Day and Father's Day celebrated? _____
- 2) Independence Day is on the first Monday, July. How many days fall between Father's Day and Independence Day? _____
- 3) Name the months which start on a Friday. _____
- 4) If the previous month was October and the next month is December, which month is this? _____
- 5) Today is March 22. What is the date two months and three weeks from today? _____

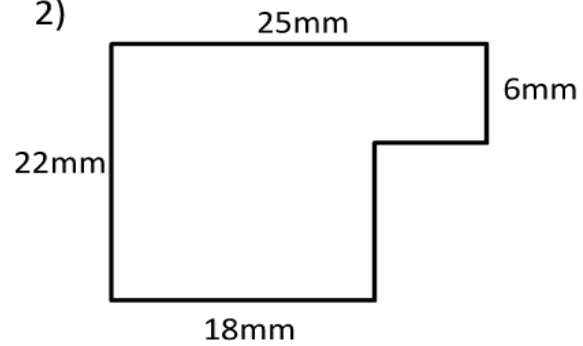
Find the length of the missing sides and then work out the perimeter of each shape. The shapes are not drawn to scale.

1)



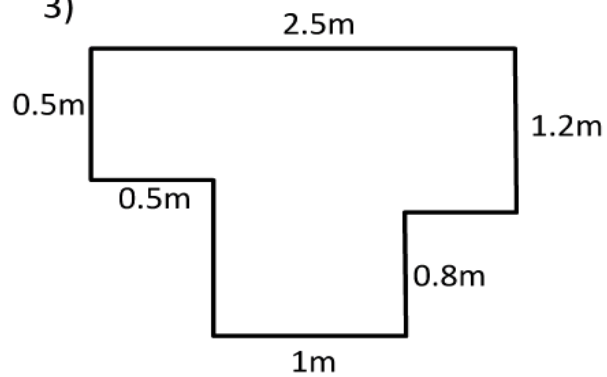
Perimeter = _____ cm

2)



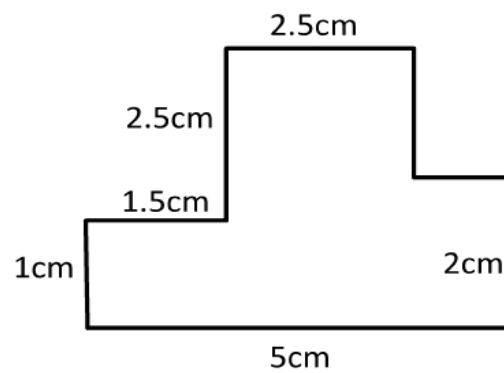
Perimeter = _____ mm

3)



Perimeter = _____ m

4)



Perimeter = _____ cm

Work out the area and perimeter of the following rectangles.

1) A rectangle measuring
4m by 3m.

Area = _____ square m

Perimeter = _____ m

2) A rectangle measuring
5cm by 6cm.

Area = _____ square cm

Perimeter = _____ cm

3) A rectangle measuring
3ft by 6ft.

Area = _____ square ft

Perimeter = _____ ft

4) A rectangle measuring 9cm by
4cm.

Area = _____ square cm

Perimeter = _____ cm

5) A rectangle measuring
7m by 5m

Area = _____ square m

Perimeter = _____ m

6) A square with side 5cm.

Area = _____ square cm

Perimeter = _____ cm

7) A square with side 9mm

Area = _____ square mm

Perimeter = _____ mm

8) A rectangle measuring $1\frac{1}{2}$ m by
4m.

Area = _____ square m

Perimeter = _____ m

Use the chart to answer each question.

Day	Bugs Caught
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

Answers

- How many fewer bugs were caught on Saturday than were caught on Thursday?
- Which day had the greatest number of bugs caught?
- Which day had exactly 24 bugs caught?
- How many days were more than 27 bugs caught?
- How many bugs were caught on Tuesday?
- How many more bugs were caught on Sunday than were caught on Monday?
- How many days were fewer than 12 bugs caught?
- Which day had more bugs caught? Friday or Wednesday?
- Which day had the fewest number of bugs caught?
- Which day had fewer bugs caught? Friday or Monday?

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

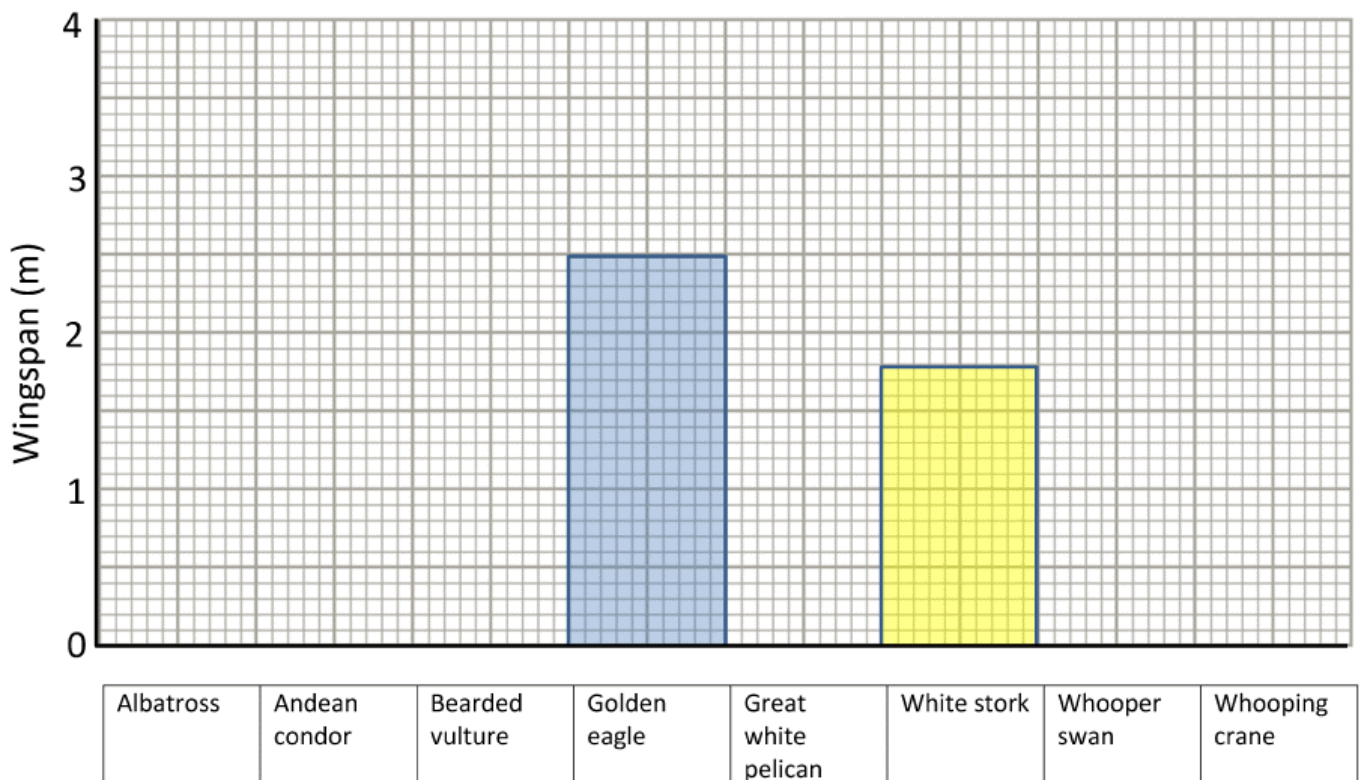
Here are the wingspans of some of the biggest birds in the world.

Bird	Wingspan (m)
Albatross	3.7
Andean condor	3.2
Bearded vulture	2.8
Golden eagle	
Great white pelican	3.6
White stork	
Whooper swan	2.8
Whooping crane	2.3

1) Complete the bar graph for the birds.

2) Fill in the table for the wingspan of the golden eagle and the white stork.

3) How much longer is the wingspan of the albatross than the whooper swan?



4) Which bird has a wingspan which is 90cm more than the whooping crane?

5) What is the difference between the longest and shortest wingspan?

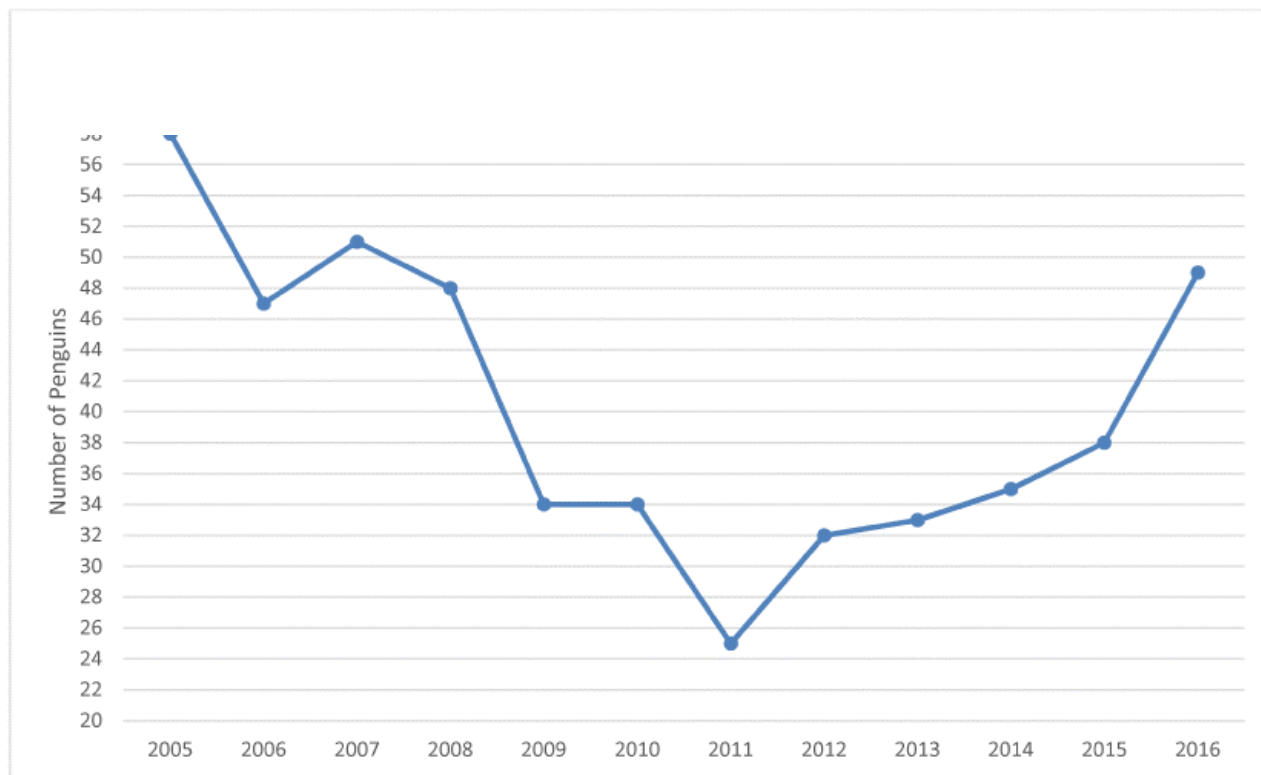
Here are the results of a throwing competition for 30 children. Each child had to throw a ball as far as they could. Flags were placed at 4m intervals to show how far they had thrown.

THROWING COMPETITION

35

30

A survey of the endangered Galapagos penguins was carried out on a small Galapagos island.



Answer the following questions about the data:



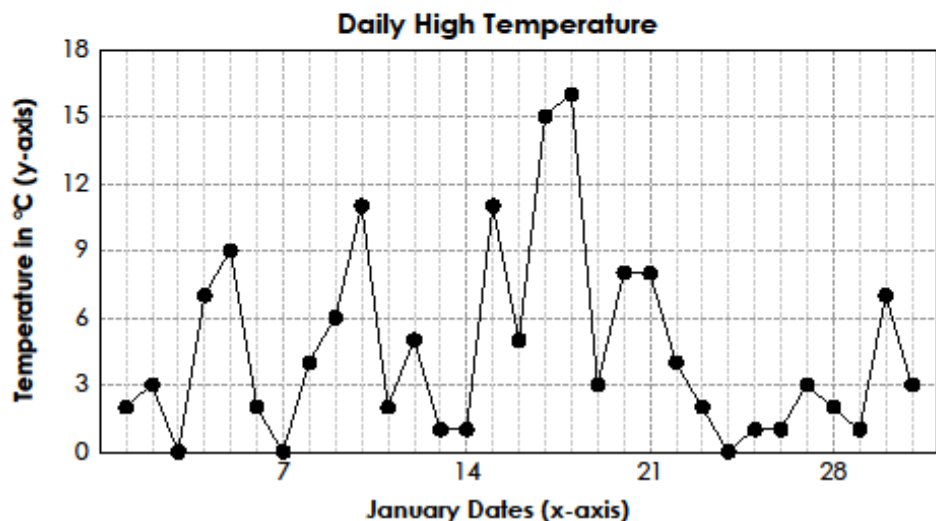
- 1) Which year showed the lowest population of penguins? _____
- 2) How many penguins were seen in 2007? _____
- 3) Which two consecutive years did the population stay the same? _____
- 4) How much did the population decrease by between 2008 and 2009? _____
- 5) Which year shows a population of 35 penguins? _____
- 6) Answer **true**, **false** or **can't tell** to each of the statements below:

a)	Between 2005 and 2011, the population of Galapagos penguins fell each year.	
b)	The biggest year-on-year increase in population was 2015-2016.	
c)	The population of the penguins in 2017 will be even better than 2016.	
d)	Between 2011 and 2016, the population has doubled.	
e)	Since 2011, the population has increased each year.	

Name: _____

Temperature Line Graph

The daily high temperatures for Gotham City in the month of January were recorded and graphed. Use the graph to answer the questions.



1. What was the high temperature in Gotham City on January 10? 1. _____
2. On which two days was Gotham City's high temperature 7°C? 2. _____
3. On which day did Gotham City have the highest temperature? 3. _____
4. On which three days did Gotham City have the lowest high temperature? 4. _____
5. Which of these days had the highest temperature?
 - a. January 2
 - b. January 15
 - c. January 17
 - d. January 30
6. Which of these statements about Gotham City's high January temperatures is true?
 - a. In January, Gotham City's high temperatures went above 12°C four times.
 - b. In January, Gotham City's high temperature was usually below freezing.
 - c. In January, Gotham City's high temperature did not go below freezing.
 - d. In January, Gotham City's climate is tropical.