



Year 9 Mastery Homework

Maths

Cycle 3a

First name	
Last name	
Advisory	
Class	
Teacher	

Purpose:

This homework booklet is designed to support you in two areas:

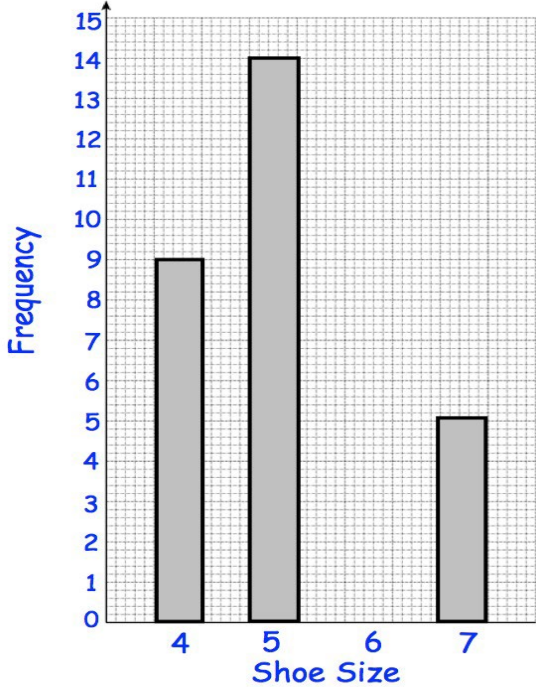
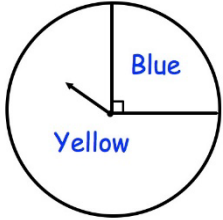
1. Retrieval of key information on topics covered.
2. Practising application of knowledge to high frequency exam questions.

Deadlines:

You will have one page of exam practice each week to complete in addition to your SparxMaths homework.

You should spend no longer than 20 minutes on your mastery homework task.

Mastery homework is due every week on Wednesday.

<p>How many students had a shoe size of 4?</p>	 <table border="1"><thead><tr><th>Shoe Size</th><th>Frequency</th></tr></thead><tbody><tr><td>4</td><td>9</td></tr><tr><td>5</td><td>14</td></tr><tr><td>6</td><td>0</td></tr><tr><td>7</td><td>5</td></tr></tbody></table>	Shoe Size	Frequency	4	9	5	14	6	0	7	5
Shoe Size		Frequency									
4	9										
5	14										
6	0										
7	5										
<p>10 students had a shoe size of a 6. Complete the bar chart</p>											
<p>The diagram shows a fair spinner. What colour is the spinner least likely to land on?</p> 											
<p>Write the following numbers in order of size. Start with the smallest number.</p> <p>0.08 0.25 0.81 0.2 0.68</p>											
<p>Work out</p> <p>$11 + 1.1 + 0.11$</p>											

$$\frac{1}{3} = \frac{\square}{6}$$

$$\frac{2}{7} = \frac{6}{\square}$$

Jonathan sells 17 lemonades for 45p each.

How much money did he earn?

What is the next term in this sequence?

6 12 24 48 ____

A bill of £68 was shared equally by 4 people.

1. How much did each person have to pay?
2. £20 was collected from each person, how much change did each receive?

A train leaves Bath at 10:45 It takes 23 minutes to reach Bradford-on-Avon.

At what time does it arrive at Bradfordon-Avon?

DUE: Wednesday 29th April

<p>Write 8347 to the nearest hundred</p>	
<p>What is the value of the digit 7 in the number 271,193?</p>	
<p>Carly needs 42000 blocks of Lego to build a large castle.</p> <p>The lego blocks are sold in boxes of 100.</p> <p>How many boxes of lego does she need?</p>	
<p>Work out the sum of</p> <p>10% of 420 and $\frac{1}{2}$ of 70</p>	
<p>Calculate $272 \div 8$</p>	

Henry went on a journey in his car.
Shown is the mileage on his car.

Before the journey

3	7	5	1	8
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After the journey

3	7	8	3	1
---	---	---	---	---

How far did he travel?

A school running track is 200m long.

Ali completes 13 laps of the track.

How far does Ali run?

Calculate $382 + 235$

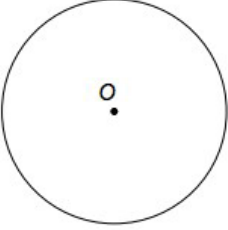
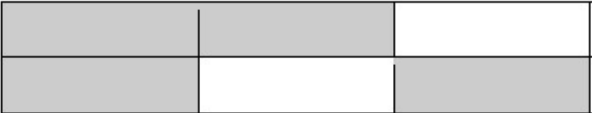
Arrange in order of size. Start
with the largest.

60% $\frac{1}{2}$ 0.3 $\frac{3}{4}$ 0.4

21 72 27 32 93

Find the sum of the odd
numbers

DUE: Wednesday 6th May

<p>Draw a diameter on the circle.</p>	
<p>Add together:</p> <ul style="list-style-type: none">- The number of days in May- The number of hours in a day <p>The number of weeks in a year</p>	
<p>What is the value of the digit 3 in the number</p> <p>9381</p>	
<p>What are the next two terms in this sequence?</p> <p>6 10 14 ___ ___</p>	
 <p>What fraction of this grid is shaded?</p>	

7

4

8

1

Write down the largest **even** number you can using all four cards

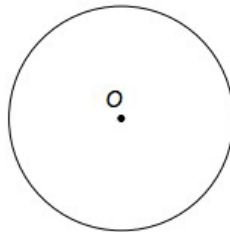
Write the following numbers in order.

Start with the lowest number.

-5 3 1 -6 8

What is the difference in grams between 1.25kg and 760g?

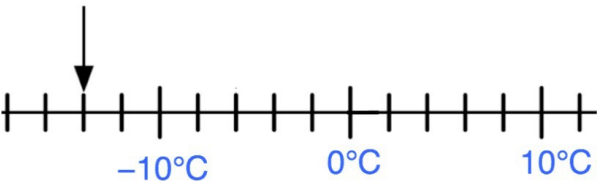
Draw a radius on the circle.



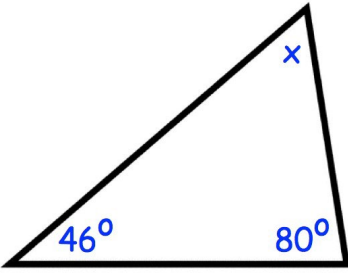
Benny is paid £200 a week.
Each week he saves two-fifths of his pay.

How much does he save each week?

DUE: Wednesday 13th May

<p>1. List all the factors of 18</p> <p>2. List all the factors of 30</p>	
<p>Alan has 178 marbles. Ben has 30 marbles less than Alan.</p> <p>How many marbles do they have altogether?</p>	
<p>Sienna has £1.80 She only has 10 pence coins and 20 pence coins. She has the same number of each type of coin.</p> <p>How many coins does Sienna have?</p>	
<p>What temperature is shown by the arrow?</p>  <p>The number line shows a scale from -10°C to 10°C. Major tick marks are at -10°C, 0°C, and 10°C. There are 5 minor tick marks between each major tick mark, representing 2°C intervals. An arrow points to the 4th minor tick mark to the left of 0°C, which is -8°C.</p>	
<p>Find the difference between $\frac{1}{3}$ of 24 and $\frac{1}{4}$ of 20</p>	

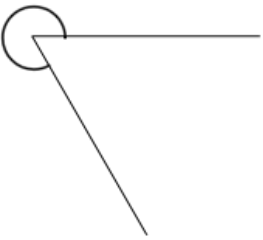
Find the size of the missing angle



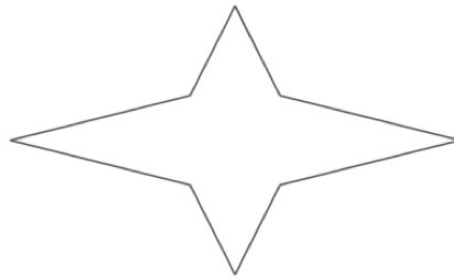
Tina says "When you multiply an odd number and an even number together, you will always get an odd number."

Is Tina correct?

What type of angle is shown?



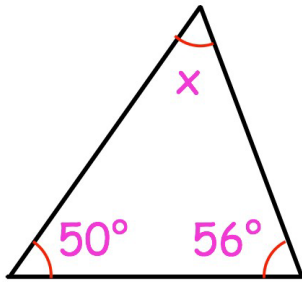
Draw any lines of symmetry on the shape.



1. Write 25% as a fraction
2. Write 25% as a decimal

DUE: Wednesday 20th May

Find x



Work out $12.6 - 3.14$

A teacher has 153 sweets.
The teacher shares the sweets equally
among 9 students.

How many sweets does each pupil
receive?

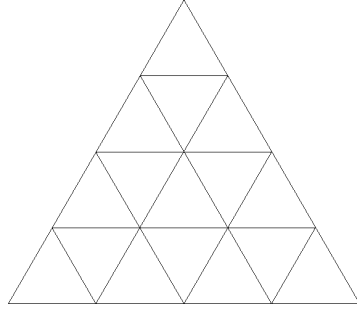
Fill in the missing numbers

$$\begin{array}{r} \square 2 4 \\ - 1 5 \square \\ \hline 6 \square 9 \end{array}$$

Jonny says "When you add an even
number to an odd number, you will
always get an odd number."

Is Jonny correct?

Shade $\frac{3}{4}$ of the shape.



Oliver buys a cola for 84p.
How much change will he receive from
£5?

Work out 8^2

A coffee shop sells cups of coffee in
0.4 litre cups.
In one day they sell 10000 cups of
coffee.

How many litres of coffee do they
sell?

Circle all the equivalent fractions

$$\frac{1}{3} \quad \frac{2}{5} \quad \frac{2}{6} \quad \frac{3}{12} \quad \frac{5}{15}$$