



First Name

Last Name

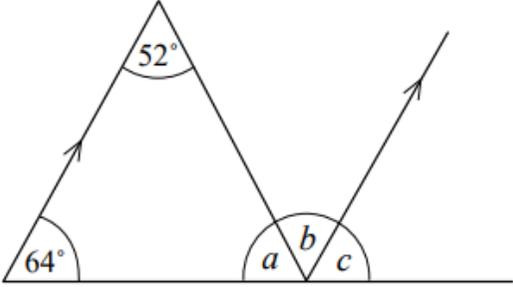
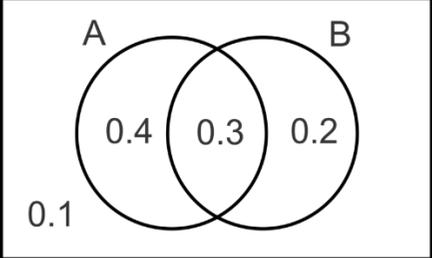
Teacher's Name

HOME LEARNING PACK

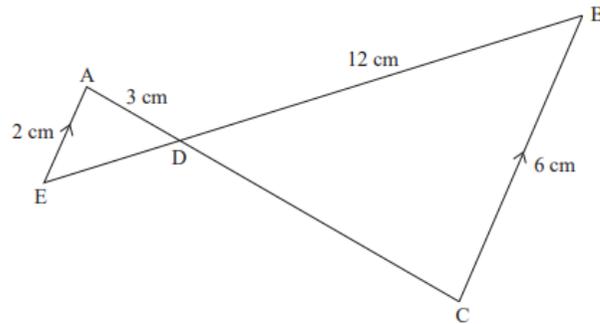
TERM 5

YEAR 11: CALCULATOR – SET 1

HIGHER – Grade 4 – 6

<p>When $a = -3$, find the value of $5a^2 - 2a$.</p>	<p>Jo and Dan share sweets in the ratio $10 : 4$. Jo has 18 more sweets than Dan. How many sweets does Dan have?</p>	<p>Increase £43 by 16%.</p>	<p>A circle has area 40cm^2. Find its diameter. Round your answer to two decimal places.</p>
<p>Work out the size of angles a, b and c.</p> 	<p>Given that £1 = \$1.30, how much is \$200 worth in pounds?</p>	 <p>a) Find $P(A \cup B)$.</p> <p>b) Find $P(A')$.</p>	
<p>Use your calculator to find the cube root of 110. Round your answer to 1 decimal place.</p>	<p>Find the midpoint of $(-3, 5)$ and $(7, 10)$.</p>	<p>The cost of a jacket increases by £5. The new price is £85. Find the percentage increase.</p>	<p>$a = 13$ correct to the nearest integer. $b = 70$ correct to the nearest ten. Find the upper bound of $\frac{b}{a}$.</p>

Find the length CD.



If $a : b = 8 : 7$
and $a : c = 10 : 7$
write the ratio $b : c$ in
simplest form.

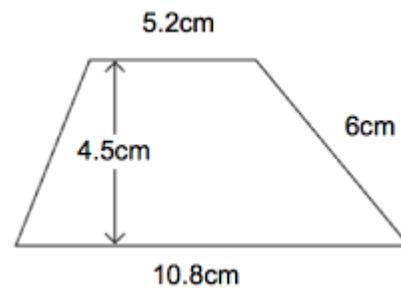
Are the following
numbers prime?

a)

b)

I bought a scarf in the sale. It
was marked as 30% off. It
cost me £10.50. What was the
original price?

Work out the area of the
trapezium.

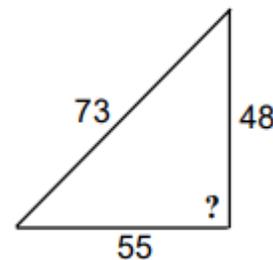


Use your calculator
to work out
 $6.12 \times 10^7 \div 4.8 \times 10^2$.
Answer in standard form.

Find the gradient of the line
joining $(-3, 5)$ and $(7, 10)$.

What's the exterior angle of a
regular decagon?

Is this triangle right angled?



y is inversely proportional to
 x . Given that $y = 12$ when
 $x = 4$, find the value of y
when $x = 16$.

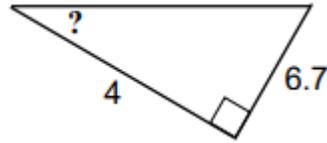
I buy a car for £15,670. The car depreciates at a rate of 23% per annum.

a) How much is the car worth in 5 years?

b) How many years until the car is worth less than £1000?

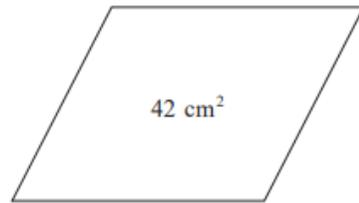
An equilateral triangle with side length 24cm has the same perimeter as a square. What's the area of the square?

Find the marked angle.



This parallelogram has an area of 42cm^2 .

The parallelogram is enlarged



with a scale factor of 5. Calculate the area of the enlarged parallelogram.

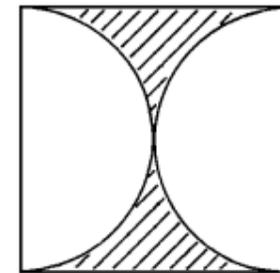
I have five red socks and six green socks in a drawer. I pick two socks at random. What's the probability both socks are the same colour?

What's longer, 1500 metres or 1 mile?

Use the conversion $8\text{ km} = 5\text{ miles}$.

Find two consecutive numbers which, when multiplied together, make 462.

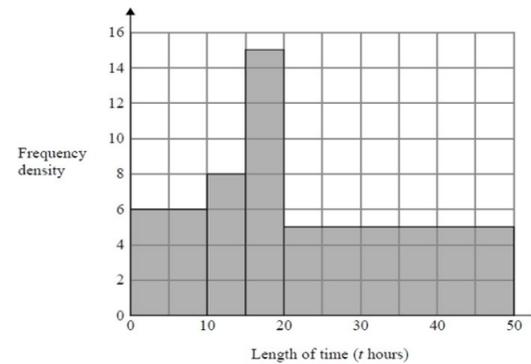
The picture shows a square and two semicircles. Find the shaded area.



9 cm

Solve $x^2 + 8x - 3 = 0$.
Give your answers to 2 decimal places.

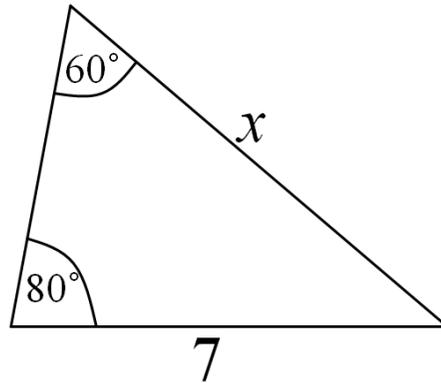
The histogram shows the amount of time a group of people spent watching TV last week. Estimate the percentage of people who watched TV for more than 40 hours.



Find the coordinates of the turning point of the graph $y = 10x - x^2$.

In a sample, 6 earthworms measure between 40mm and 60mm. 10 earthworms measure between 60mm and 120mm. Estimate the mean length.

Work out x .



Show, by shading on the grid below, the region defined by $y \leq x + 2$. Label your region **R**.

