GCSE Maths – Foundation grade C

Five questions a day

Set 5

Instructions

Complete one set of questions each day.

Write your answers in the boxes and remember to show your working.

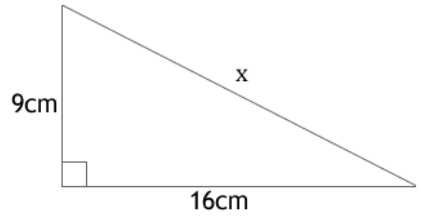
Calculators are allowed for day 2 and day 3 only.

Once the answers have been marked, record your progress on page 8

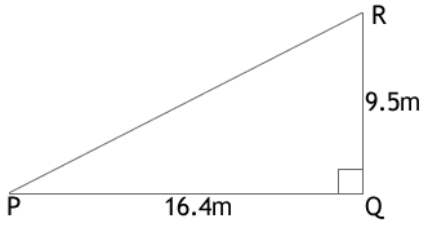
Day 1 Sequences

1.	Write the next two numbers in this sequence. 27, 25, 21, 15, …
2.	Write down the next two terms in the sequence and state the rule. 7, 14, 21, 28, ….
3.	What is the nth term in this sequence? 3, 8, 13, 18, ….
4.	What is the nth term in this sequence? 3, 10, 17, 24, …
5.	What is the nth term in this sequence? 14, 19, 24, 29, 34, …

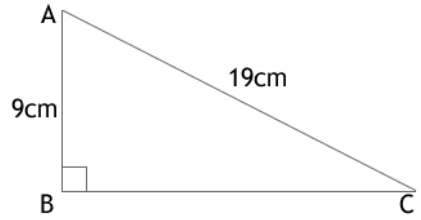
Day 2 Pythagoras ***You may use a calculator.***

1. 

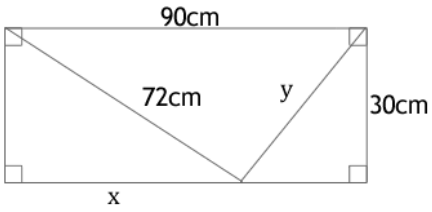
Work out the length of x.

2. 

Find the length of the line PR.

3. 

Work out the length of BC.

4. 

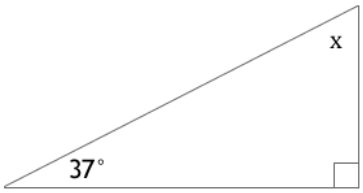
Calculate the length of x.

5. *Using the diagram in Q4…*

Calculate the length of y.

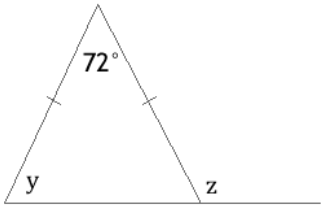
Day 3 Finding angles ***You may use a calculator.***

1.



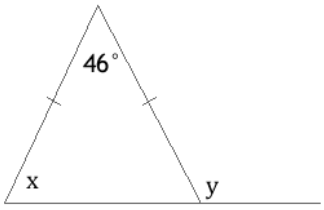
Find angle x.

2.



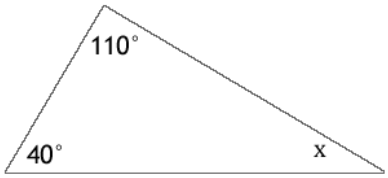
Find angle y and angle z.

3.



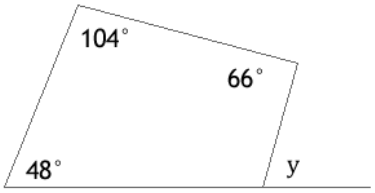
Find angle x and angle y.

4.



Find angle x.

5.



Find angle y.

Day 4 Circumference and area of circles

1.	A gardener is making a circular lawn with a radius of 5m Calculate the area of the lawn, leaving your answer in terms of π.
2.	*Use the information in Q1…* Calculate the area of this lawn. Round your answer to 2 dp.
3.	*Use the information in Q1…* The gardener wants to put some edging around the circumference. How much edging is needed?
4.	A £2 coin has a diameter of 28mm. Calculate the circumference of the coin. Round your answer to 1dp.
5.	What is the area of the £2 coin? Round your answer to 2 dp.

Day 5 Square and cube numbers

1.	20, 21, 22, 23, 24, 25, 26, 27, 28 From this list, write down a cube number.
2.	20, 21, 22, 23, 24, 25, 26, 27, 28 From this list write down a square number.
3.	What is 4^3?
4.	Write down the first ten square numbers.
5.	What is $\sqrt{121}$?

Progress

Topic	Score	Traffic light	Comment
Sequences			
Pythagoras			
Finding angles			
Circumference and area of circles			
Square and cube numbers			

Solutions

Day 1

1. 23, 33
2. 35, 42
3. 5n - 2
4. 7n - 4
5. 5n + 9

Day 2

1. 18.4cm
2. 19.0m
3. 16.7cm
4. 65.5cm
5. 38.8cm

Day 3

1. 53°
2. 54° and 126°
3. 67° and 113°
4. 30°
5. 38°

Day 4

1. 25π m^2
2. $78.54m^2$
3. 31.42m
4. 87.96mm
5. $615.75mm^2$

Day 5

1. 27
2. 25
3. 64
4. 1, 4, 9, 16, 25, 36, 49, 64, 81, 100
5. 11