

Weekly check: Grade 5

Grade 5 | Foundation and Higher | 20 questions, 50 marks

GCSE Maths weekly check



Scan for the solutions

Name: _____

Date: _____

Score: _____ / 50

1 Solve $x^2 - 11x + 28 = 0$

(3 marks)

Answer _____

2 Solve $7x - 4 > 3x + 12$

(3 marks)

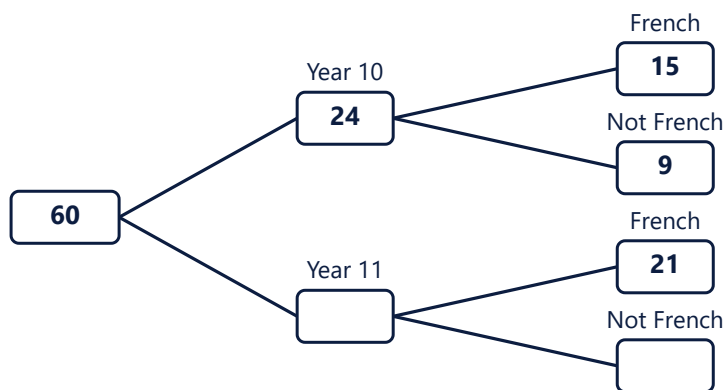
Answer _____

3 Use trial and improvement to find the cube root of 300, correct to 1 decimal place. Do not use the cube root key on your calculator. You must show all your trials.

(3 marks)

Answer _____

- 4 There are 60 students in Year 10 and Year 11 at a small school.
24 of the students are in Year 10 and the rest are in Year 11.
Of the Year 10 students, 15 study French and 9 do not.
Of the Year 11 students, 21 study French.
a. Work out the number of students in Year 11.
b. Work out the number of Year 11 students who do not study French.



(3 marks)

Answer _____

5 Solve $\frac{x}{3} + 2 = 6$

(2 marks)

Answer _____

6 Work out $\frac{5}{8} \div \frac{3}{4}$

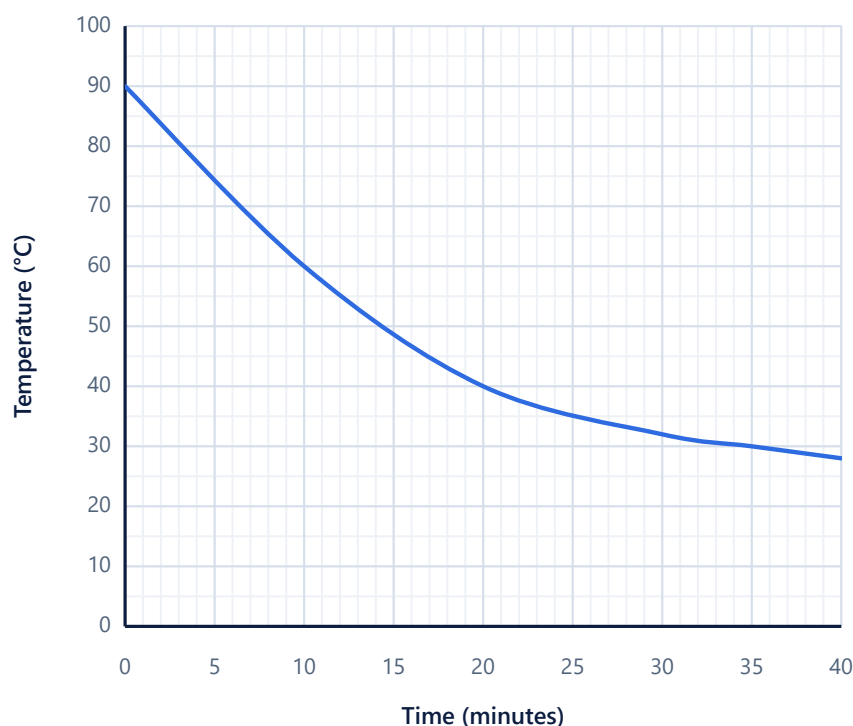
Give your answer in its simplest form.

(2 marks)

Answer _____

7 The graph shows the temperature of a cup of coffee as it cools.

- Write down the temperature of the coffee at the start.
- Find the temperature of the coffee after 20 minutes.
- Find how long the coffee takes to cool to 30°C .



(3 marks)

Answer _____

8 In a sale, all prices are reduced by 15%.

The sale price of a jumper is £68.

Work out the normal price of the jumper.

(2 marks)

Answer _____

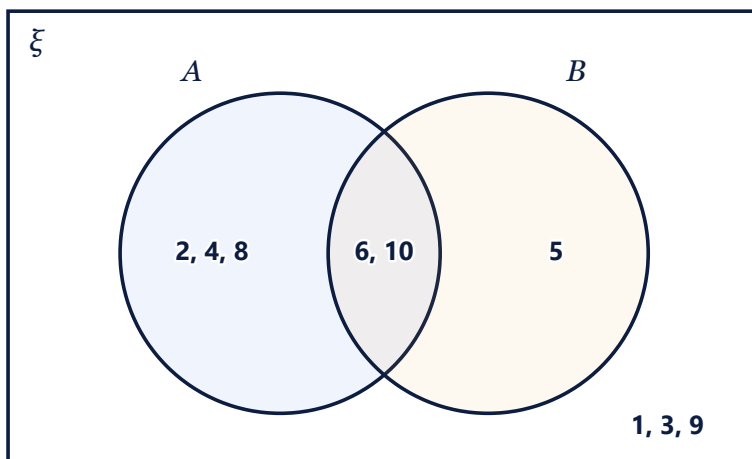
9 $\xi = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$

$A = \{\text{even numbers}\}$ $B = \{\text{multiples of 5}\}$

Kim draws a Venn diagram. She puts:

2, 4, 8 in A only 6, 10 in the intersection of A and B 5 in B only 1, 3, 9 outside both circles.

Write down **two** mistakes Kim has made.



(2 marks)

Answer _____

10 A cylindrical tin has a diameter of 8 cm and a height of 10 cm.

Work out the volume of the tin.

Give your answer correct to 3 significant figures.

(3 marks)

Answer _____

11 Ben buys a car for £16 000.

The value of the car depreciates by 15% each year.

Work out the value of the car at the end of 2 years.

(2 marks)

Answer _____

- 12 In triangle PQR, angle PQR = 90° and angle PRQ = 52° .
PQ = 9 cm.
Work out the length of PR.
Give your answer correct to 3 significant figures.

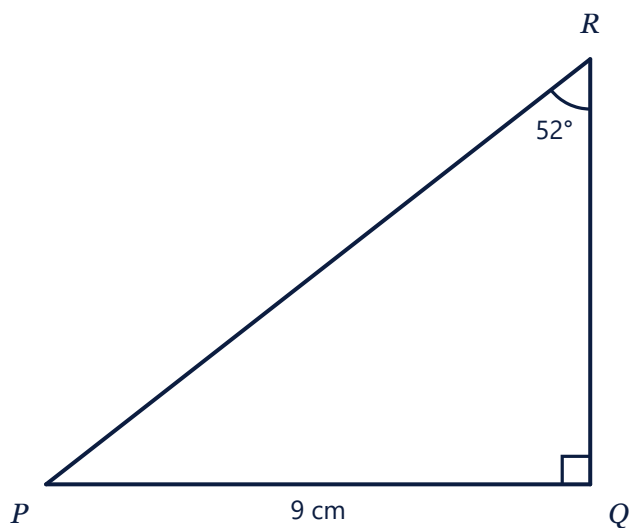


Diagram NOT accurately drawn

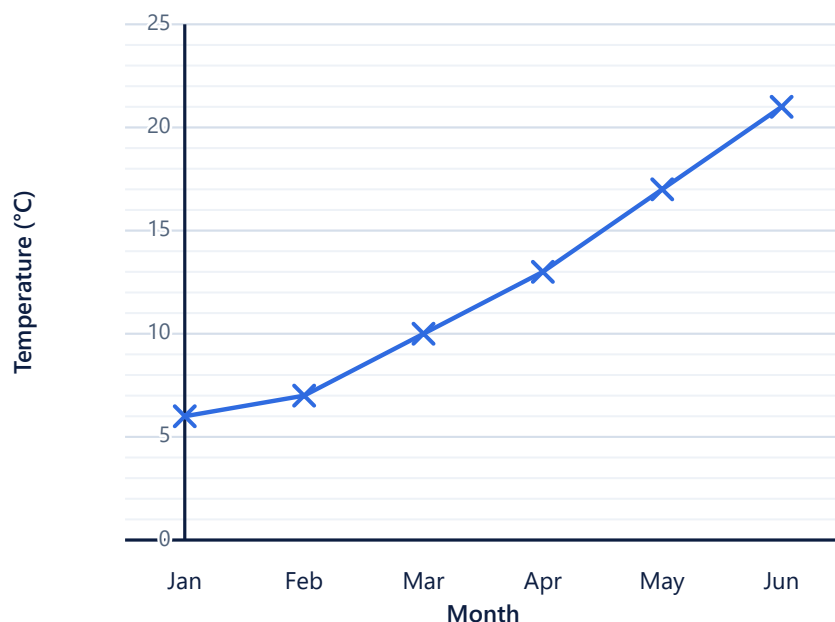
(2 marks)

Answer

- 13** A line graph shows the midday temperature in a town on the first day of each month. The table gives the plotted values.

Month	Temperature ($^{\circ}\text{C}$)
January	6
February	7
March	10
April	13
May	17
June	21

- a. Write down the month in which the temperature was 13°C .
b. Work out the difference between the temperature in June and the temperature in January.



(2 marks)

Answer _____

- 14** In triangle ABC, angle A = 35° and angle B = 80° .
In triangle DEF, angle D = 80° and angle E = 65° .
Show that triangle ABC is similar to triangle DEF.

(2 marks)

Answer _____

15 A bag contains only red, blue and yellow counters.

The numbers of red, blue and yellow counters are in the ratio 2 : 3 : x.

A counter is taken at random from the bag.

The probability that it is yellow is $\frac{2}{7}$.

Work out the value of x.

(3 marks)

Answer _____

16 a. Expand and simplify $(y + 7)(y - 7)$

b. Factorise $x^2 + x - 30$

(4 marks)

Answer _____

17 5 identical pipes can fill a storage tank in 4.8 hours.

Only 3 of the pipes are working.

Work out how long the 3 pipes will take to fill the tank.

(3 marks)

Answer _____

18 The pressure on a floor is 45 N/m^2 . The area in contact with the floor is 0.8 m^2 .

Work out the force.

(2 marks)

Answer _____

19 Ali throws a fair coin 3 times.

Each throw lands on heads (H) or tails (T).

List all the possible outcomes of the 3 throws. One outcome, HHH, has been done for you.

(2 marks)

Answer _____

- 20** Triangle DEF is a right-angled triangle with the right angle at E.
The hypotenuse $DF = 20$ cm and $DE = 8$ cm.
Work out the length of EF.
Give your answer correct to 1 decimal place.

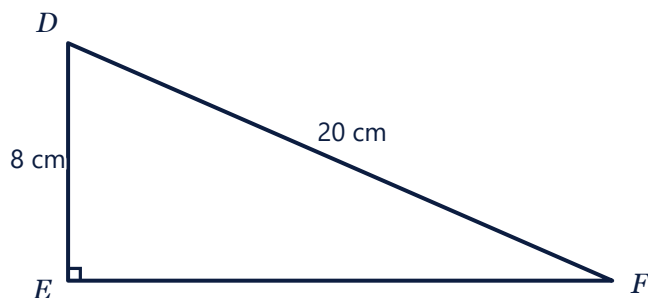


Diagram NOT accurately drawn

(2 marks)

Answer _____

End of questions | Total 50 marks