Weekly check: Year 8 part 1

Year 8 | Key Stage 3 | Part 1: the first third of the year | 20 questions, 50 marks

KS3 Maths weekly check

Scan for the solutions

Name: _____ **Date:** _____ **Score:** _____ **/ 50**

1 a. A regular hexagon has sides of 7 cm. Work out its perimeter.

b. A regular pentagon has a perimeter of 45 cm. Work out the length of one side.

c. Work out the perimeter of the quadrilateral in the diagram.

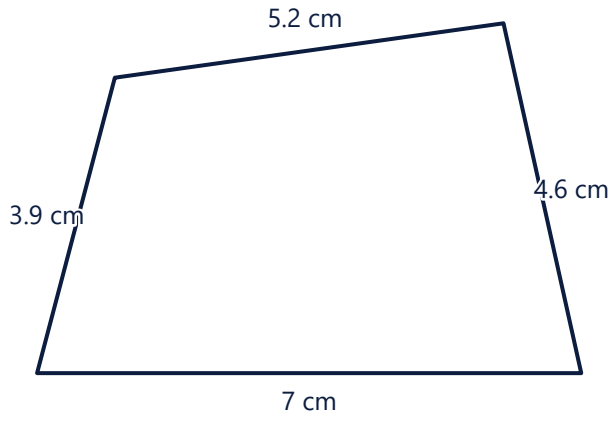


Diagram NOT accurately drawn

(3 marks)

Answer _____

2 Work out $\sqrt{49} + 2^3 \times 3$

(2 marks)

Answer _____

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3

a. Write $2^3 \times 2^4$ as a single power of 2

b. Jamal says, "$2^3 + 2^4 = 2^7$".
Show that Jamal is wrong.

(3 marks)

Answer _____

4

a. Write $3\frac{2}{5}$ as an improper fraction.

b. Write $\frac{29}{6}$ as a mixed number.

(2 marks)

Answer _____

5

A rectangle is 12 cm long and 9 cm wide.
A rectangle 5 cm by 4 cm is removed from one corner.
Work out the area of the remaining shape.

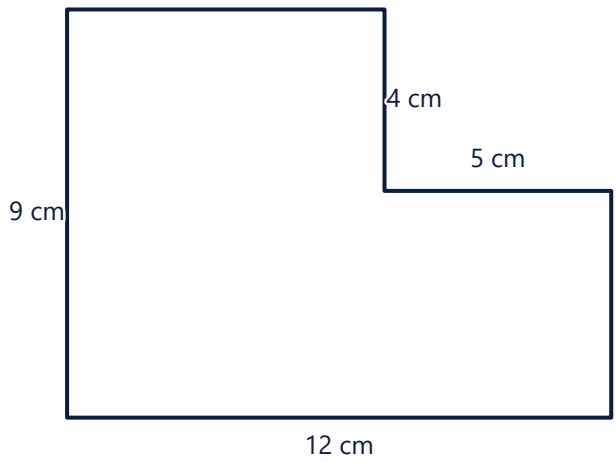


Diagram NOT accurately drawn

(3 marks)

Answer _____

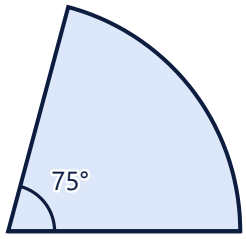
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6 A slice of a round cheese is a sector of a circle with radius 12 cm and angle 75°.

a. Work out the length of the curved edge (the arc) of the slice.

b. Work out the perimeter of the slice.

Give your answers correct to 1 decimal place.



12 cm

Diagram NOT accurately drawn

(3 marks)

Answer _____

7 Use your calculator to work out

$(2.4^2 + 1.8) \div 0.5^3$

Write down all the figures on your calculator display.

(2 marks)

Answer _____

8 A circle has diameter 18 cm.

a. Work out the circumference of the circle. Give your answer in terms of π.

b. Work out the area of the circle. Give your answer in terms of π.

(3 marks)

Answer _____

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9 An L-shape is made by removing a rectangle 3 cm by 2 cm from one corner of a rectangle 8 cm by 6 cm.

Work out the perimeter of the L-shape.

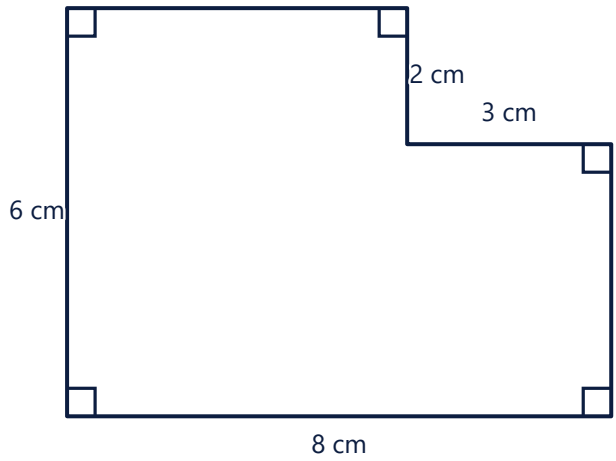


Diagram NOT accurately drawn

(3 marks)

Answer _____

10 A number x is 470, correct to 2 significant figures.

Complete the error interval for x.

..... ≤ x < .....

(2 marks)

Answer _____

11 Write 264 as a product of its prime factors.

(2 marks)

Answer _____

12 Choose the correct symbol, <, > or =, to make each statement true.

a. $\frac{3}{5}$ ___ $\frac{7}{10}$

b. $\frac{4}{6}$ ___ $\frac{2}{3}$

(2 marks)

Answer _____

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13 Here is a list of numbers.

6 8 9 16 21 27 28 49 125

From the list, write down

a. the square numbers

b. the cube numbers

c. the triangle numbers

(3 marks)

Answer _____

14 a. Write 600 as a product of its prime factors. Give your answer in index form.

b. Hence write 1200 as a product of its prime factors in index form.

(3 marks)

Answer _____

15 Work out the missing number in each calculation.

a. $-8 \times \square = 56$

b. $\square \div (-3) = 6$

(2 marks)

Answer _____

16 A circular coaster has a diameter of 10 cm.

a. Work out the circumference of the coaster.

b. Work out the area of the coaster.

Give each answer correct to 1 decimal place.

(3 marks)

Answer _____

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17 a. Write down the denominator of the fraction $\frac{15}{35}$

b. Write $\frac{15}{35}$ in its simplest form.

c. Write $\frac{24}{36}$ in its simplest form.

(3 marks)

Answer _____

18 a. Work out 15 − 6 + 4

b. Work out 30 ÷ 5 × 3

(2 marks)

Answer _____

19 The mass of a cat is 8.3 kg, correct to 1 decimal place.

Complete the error interval for the mass, w kg, of the cat.

..... ≤ w < .....

(2 marks)

Answer _____

20 Here are the temperatures, in °C, at 6 am on five days in January.

−4 −1 2 −3 −4

Work out the mean temperature.

(2 marks)

Answer _____

End of questions | Total 50 marks

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