

## AQA GCSE Mathematics Calculator 2023 Foundation Paper 3 Revision Worksheet

## Questions 1–10

**1. Solve the following equations:**

(a) Solve  $5x = 15$

$x =$

(b) Solve  $y + 7 = 50$

$y =$

(c) Solve  $\frac{c}{4} = 8$

$c =$

**2. Here is a list of numbers: 10, 8, 2, 11, 12, 15, 4, 4**

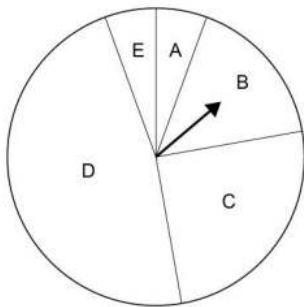
(a) Write down the mode.

(b) Work out the median.

(c) Work out the range.

**3. Probability and Spinners**

(a) A fair spinner with five sections is spun.

**Complete these statements:**

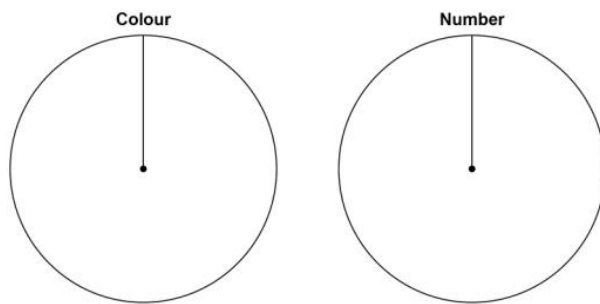
The spinner is most likely to land on section

The spinner is equally likely to land on sections \_\_\_\_ and \_\_\_\_

(b) Two different spinners are spun. One spinner has sections labelled with colours. The other spinner has sections labelled with numbers. Here is a list of all the possible outcomes:

|         |         |         |         |
|---------|---------|---------|---------|
| Red 1   | Red 2   | Red 3   | Red 4   |
| Blue 1  | Blue 2  | Blue 3  | Blue 4  |
| Green 1 | Green 2 | Green 3 | Green 4 |

Show the possible sections on the two spinners.



#### 4. Ribbon Problem

A reel holds 9.5 metres of ribbon. Two pieces of ribbon are cut from the reel. Each piece is 20 centimetres long. **What length of ribbon is left on the reel? State the units of your answer.**

#### 5. Sequences

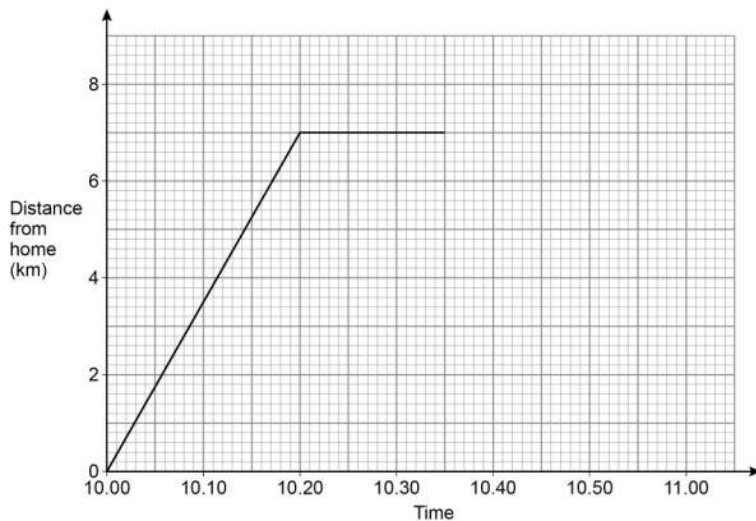
(a) The term-to-term rule for a sequence is: subtract 1 then multiply by 5. The 1st term is 4. **Work out the 3rd term.**

(b) The term-to-term rule for a different sequence is: add 20 then divide by 2. The 2nd term is 50. **Work out the 1st term.**

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**6. Distance-Time Graph**

Scarlett leaves home at 10:00 to cycle to the supermarket. Here is part of a distance-time graph of her trip to the supermarket.



- (a) She arrives at the supermarket at 10:20. How far is the supermarket from her home?
- (b) She leaves the supermarket at 10:35. How long does she stay at the supermarket?
- (c) Scarlett cycles home at a constant speed using the same route. It takes her 3 minutes longer than her journey to the supermarket. **Complete the distance-time graph.**

**7. Liam's Pay**

This week, Liam works 25 hours at £10.20 per hour and extra hours at the weekend at £11.80 per hour. Here are the extra hours he works at the weekend:

Saturday: 7 am to 10 am

Sunday: 1 pm to 3 pm

**In total, how much is he paid this week?**

**8. Mass of Oranges**

Three oranges have masses of 60 g, 70 g and 85 g.

Show that their total mass is between  $\frac{1}{5}$  and  $\frac{1}{4}$  of a kilogram.

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**9. Always, Sometimes, Never True**

For each statement, tick the correct box.

| Statement                                           | Always true | Sometimes true | Never true |
|-----------------------------------------------------|-------------|----------------|------------|
| One of the three angles of a triangle is $90^\circ$ |             |                |            |
| One of the three angles of a triangle is obtuse     |             |                |            |
| One of the three angles of a triangle is reflex     |             |                |            |

**10. Simplifying Algebra**

(a) Simplify fully:  $p^2 \times p$

(b) Simplify fully:  $3a + 5c - a + 6c$

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