

# ENTRY LEVEL CERTIFICATE MATHEMATICS

## 5930/3

Externally set assignment

Component 3 – Ratio

Specimen 2015

Time allowed: 45 minutes

### Materials

For this paper you must have:

- a pen
- a pencil
- a ruler

You may use a calculator.

20 counters should be made available for each candidate.



### Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the bottom of this page.
- Answer **all** questions.
- You must answer the questions in the space provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work that you do not want to be marked.

### Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 30
- You are expected to use a calculator where appropriate.

### Advice

- In all calculations, show clearly how you worked out your answer.

Please write clearly, in block capitals.

Centre number

Candidate number

Surname

Forename(s)

Candidate signature \_\_\_\_\_

Answer **all** questions in the spaces provided.

1 Fill in the missing numbers.

1 (a)  $4 + 5 = 3 + \square$

[1 mark]

1 (b)  $14 + 4 = 11 + \square$

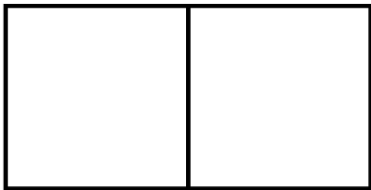
[1 mark]

1 (c)  $9 - 3 = 18 - \square$

[1 mark]

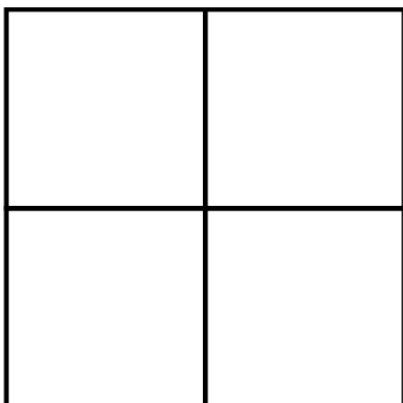
2 Shade in one half.

2 (a)



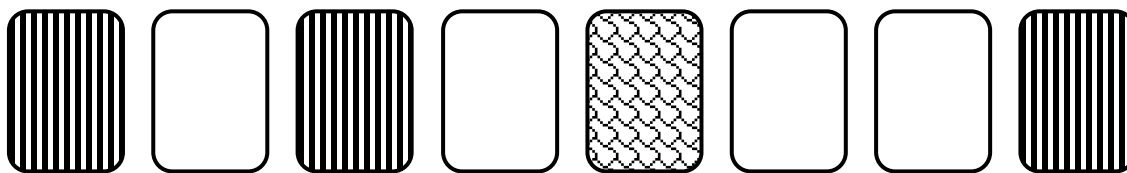
[1 mark]

2 (b)



[1 mark]

3 Look at the cards.



Tick  the correct statement.

[1 mark]

Half of the cards are blank

Half of the cards have stripes

4 Work out half of

4 (a)

8

\_\_\_\_\_

[1 mark]

4 (b)

14

\_\_\_\_\_

[1 mark]

5 Ellie has 16 beads.

She gives half of them to Jonny.

How many beads does she give him?

[1 mark]

\_\_\_\_\_

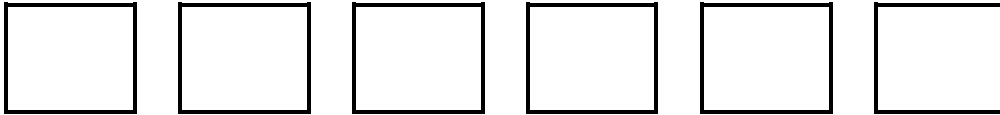
6 Shade half of the counters.

[1 mark]



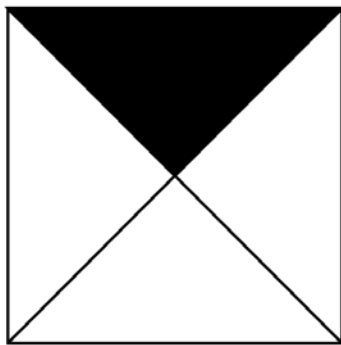
7 Shade one third of the tiles.

[1 mark]



8 What fraction of the square is shaded?

[1 mark]



---

9 Work out the next number in the pattern.

[1 mark]

$1\frac{1}{2}$    2    $2\frac{1}{2}$    3   \_\_\_\_\_

---

10 Work out

10 (a)  $\frac{1}{4}$  of 20

[1 mark]

---

10 (b) one third of 18

[1 mark]

---

11 Alice has 15 apps.

11 (a) Jed has twice as many as Alice.

How many does he have?

[1 mark]

---

11 (b) Harris has four times as many as **Alice**.

How many does he have?

[1 mark]

---

- 12 Circle the **two** fractions that have the same value.

[1 mark]

$$\frac{1}{2} \quad \frac{2}{3} \quad \frac{2}{4} \quad \frac{3}{5}$$

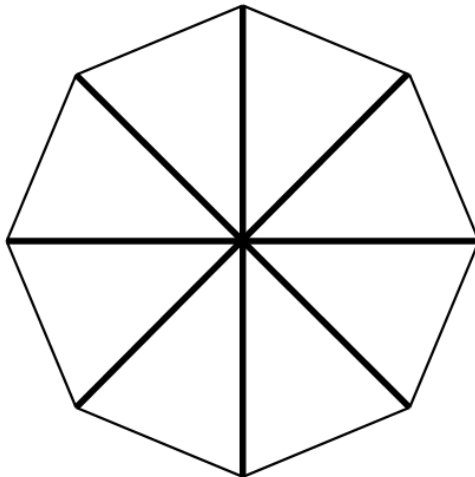
- 13 Davi raised £10 for charity.  
Eric raised three times as much.  
How much did Eric raise?

[1 mark]

£ \_\_\_\_\_

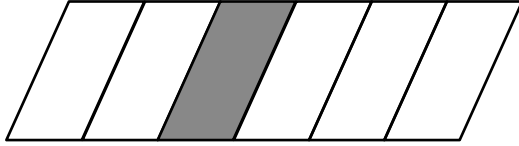
- 14 Shade one quarter of the shape.

[1 mark]



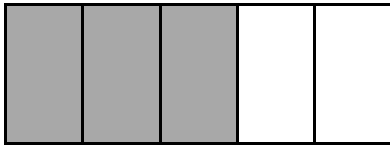
15 (a) What fraction of the shape is shaded?

[1 mark]



15 (b) What fraction of the shape is shaded?

[1 mark]



16 Work out

16 (a)  $\frac{1}{7}$  of 35

[1 mark]

16 (b)  $\frac{2}{3}$  of 24

[1 mark]

17 Work out three fifths of 30

[1 mark]

---

18 Work out

18 (a)  $\frac{2}{5} + \frac{1}{5} = \text{---}$

[1 mark]

---

18 (b)  $\frac{6}{7} - \frac{4}{7} = \text{---}$

[1 mark]

---



- 19** Katie has 50 texts left for the next 7 days.  
Does she have enough to send 8 texts a day?  
Show how you decide.

[2 marks]

---

---

---

- 20** Fill in the missing number to make the fractions equivalent.

[1 mark]

$$\frac{1}{4} = \frac{\quad}{12}$$

**END OF QUESTIONS**

**There are no questions printed on this page**

**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**