

- Jennika and Mariella share £63 in the ratio 5 : 2

Work out how much each person gets

Jennika £

Mariella £

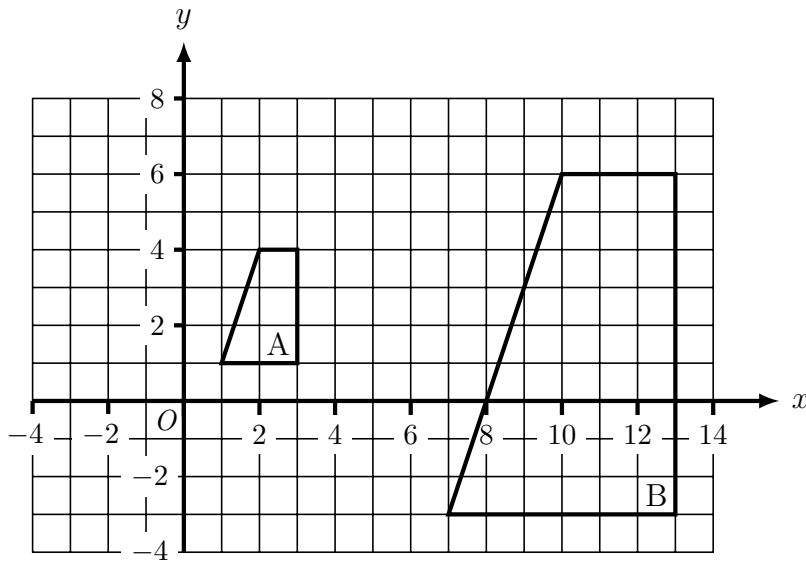
- Aarya and Bentley share some money in the ratio 3 : 2

Aarya gets £150

Work out how much Bentley should have.

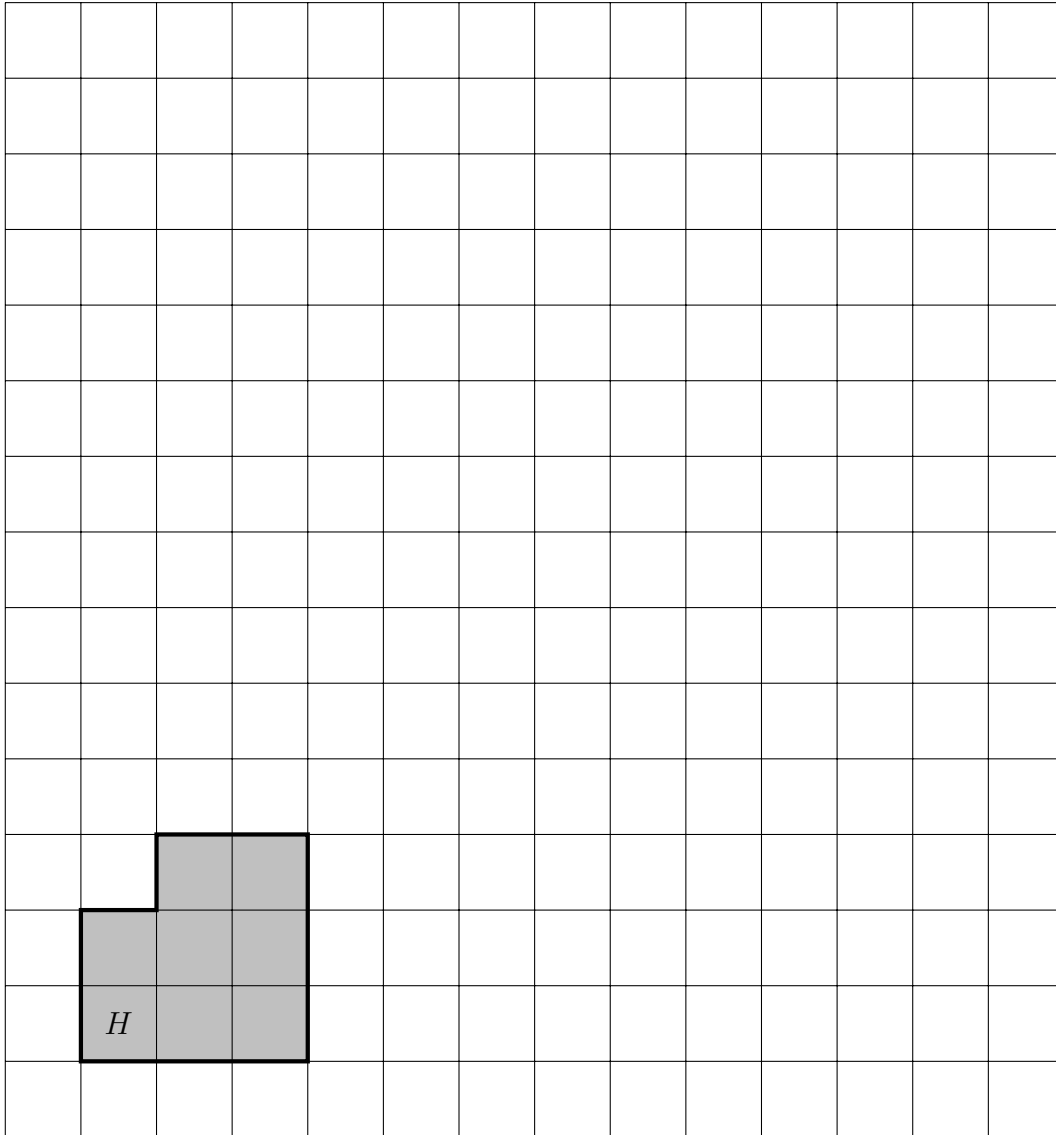
£

- Describe fully the transformation that maps shape A onto shape B.



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4.



Draw an enlargement of shape H scale factor 2.

5. There are only blue pens, black pens and red pens in a tin.

There are 6 blue pens.

There are 2 black pens.

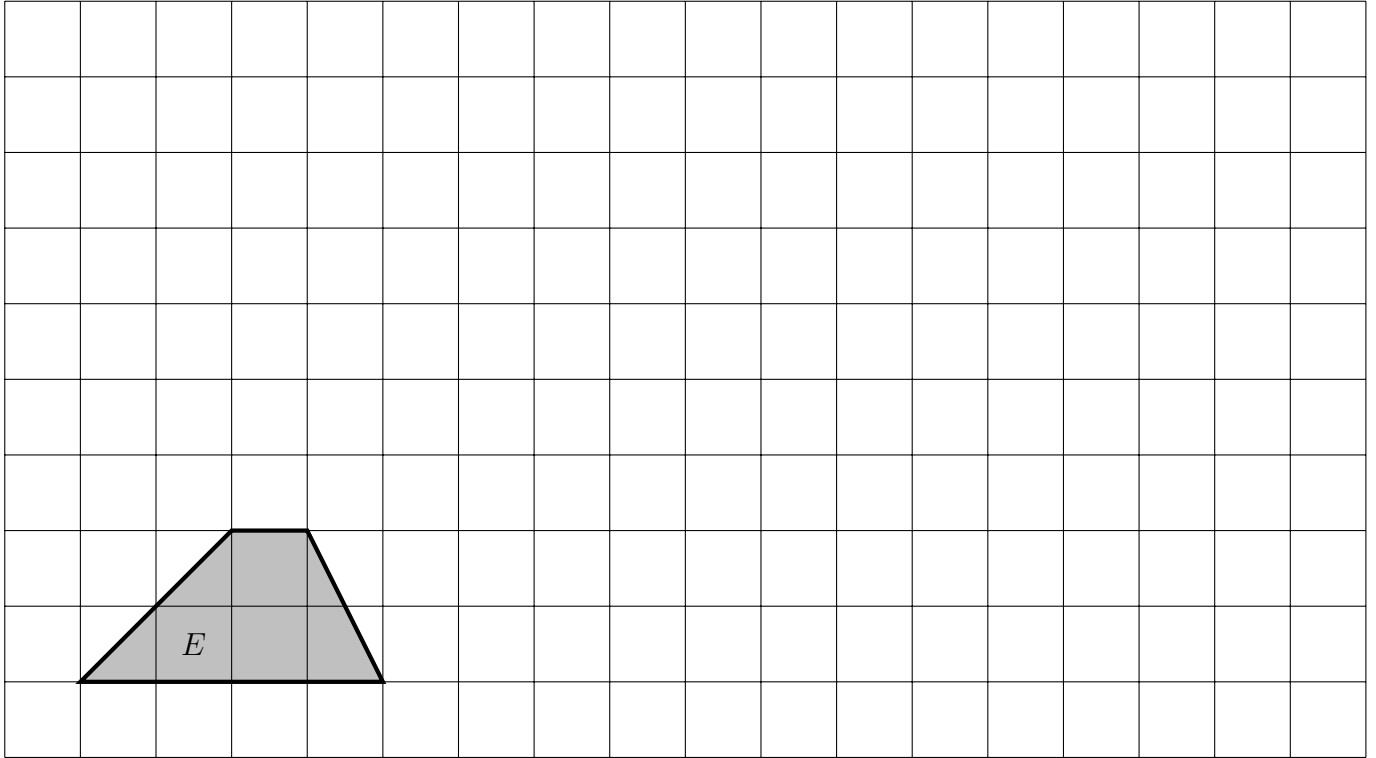
There are 3 red pens.

Name takes at random a pen from the tin.

Work out the probability that he takes a pen that is **not** blue.

5.

6.



Draw an enlargement of shape E scale factor 3.

7. (a) Work out $\frac{1}{3} \times \frac{3}{5}$

Give your answer in its simplest form.

(a)

8. (a) Work out $\frac{3}{4} \div \frac{7}{8}$

Give your fraction in its simplest form.

(a)

9. A bag contains only blue, red and yellow balls.

Three students each take a ball from the bag, record the colour of the ball and replace the ball back in the bag.

Each student does this a different number of times.

The students' results are shown in the tables below.

Saba's results			
Colour	blue	red	yellow
Frequency	27	39	34
Total number of results = 100			

Taliah's results			
Colour	blue	red	yellow
Frequency	3	3	4
Total number of results = 10			

Udoka's results			
Colour	blue	red	yellow
Frequency	51	85	54
Total number of results = 190			

One more ball is to be taken from the bag.

- (a) Taliah says she has the best results to give an estimate of the probability of taking a red ball.

Is Taliah correct?

Explain your answer.

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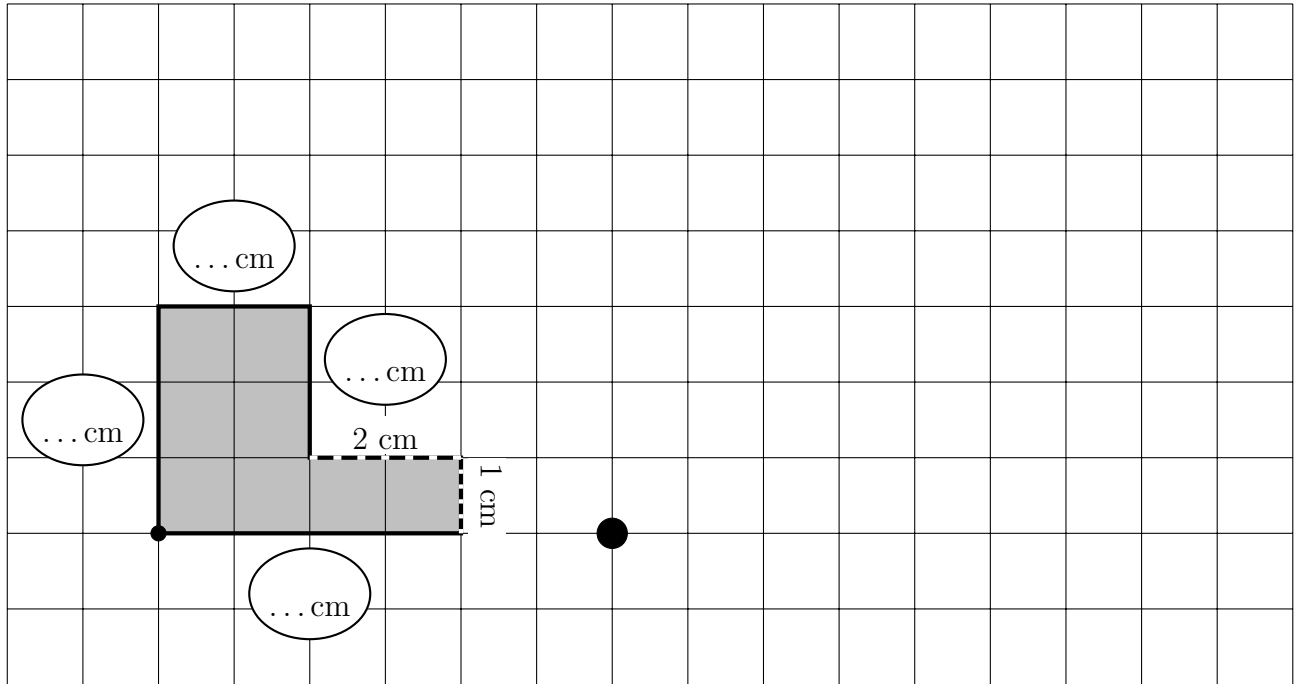
- (b) Use the results to work out the best estimate for the probability that the ball will be red.

(b)

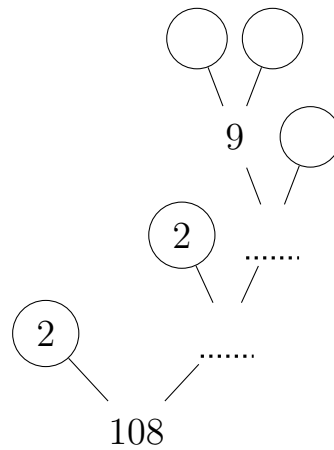
Stuck? try these first

10. Draw an enlargement of the shaded shape with a scale factor of 2

You may use the formula: $\text{edge} \times \text{scale factor} = \text{EDGE}$



11. (i) Complete this prime factor tree.



(ii) Write 108 as a product of its prime factors.

11.

12. (a) Work out $\frac{1}{2} \times \frac{3}{4}$

(a)

13. (a) Work out $\frac{3}{5} \div \frac{2}{3}$

(a)

14. (a) Write 2.105×10^4 as an ordinary number

(a)

15. (a) Write 2.34×10^{-1} as an ordinary number

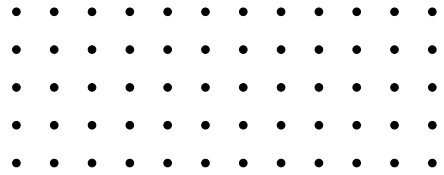
(a)

16. (a) Write 71 300 in standard form

(a)

17. Complete $\frac{1}{4} = \frac{\quad}{12}$

You may use this dotted paper to draw fractions



18. Write $\frac{10}{100}$ in its simplest form.

18.

19. Write $\frac{27}{36}$ in its simplest form.

19.