



Year 8 Baseline Test

Calculator

Time: 1 hour

Marks: 50 marks

Name _____

Date _____ Class _____



1. Write the following numbers in ascending order.

a. 5, -3, -7, 2, -1

(1 mark)

b. 0.305, 0.3, 0.32, 0.312, 0.31

(1 mark)

c. $\frac{5}{8}, \frac{3}{4}, \frac{7}{12}, \frac{2}{3}$

(2 marks)

2. Expand:

a. $3(2x + 5)$

(1 mark)

b. $4m(2m + n^2)$

(2 marks)

c. Expand and simplify $3(2x + 5) + 2(7x - 3)$.

(2 marks)

3. a. Write the ratio 35:84 in its simplest form.

(1 mark)

b. In a box of chocolates, $\frac{3}{10}$ of them are white chocolate and the rest are milk chocolate. Write the ratio of white chocolates to milk chocolates.

(1 mark)

4. a. The points (1, 4), (2, 8) and (3, y) lie on a straight line. What is the value of y?

(1 mark)

b. ABCD is a rectangle. Given that A has coordinates (3, -5), B has coordinates (3, 2) and C has coordinates (7, 2), what are the coordinates of the point D?

(1 mark)



5. 180g of flour will make 12 cookies.

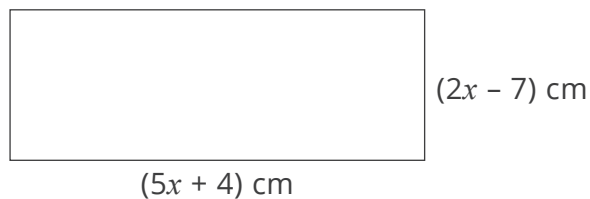
a. How much flour do you need to make 30 cookies?

(2 marks)

b. How many cookies can you make if you have 900g of flour?

(2 marks)

6. Write down an expression, in terms of x , for the perimeter of the rectangle.



(2 marks)

7. Caleb is n years old.

a. Ayesha is 5 years older than Caleb. Write an expression for Ayesha's age.

(1 mark)

b. Erika is twice as old as Caleb. Write an expression for Erika's age.

(1 mark)

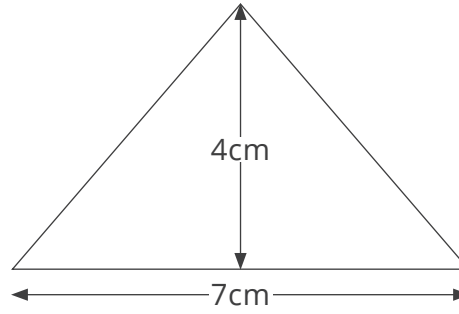
c. Write a simplified expression for the total ages of Caleb, Ayesha and Erika.

(2 marks)

8. Martha cuts a cake into 7 equal pieces and eats 3 of them. Michael cuts an identical cake into 8 equal pieces and eats 5 of them. If they put their remaining cake together, what fraction of a cake do they now have?

(3 marks)

9. Find the area of the triangle below.



(2 marks)

10. a. Sunjida and Tomas share a bag of sweets in the ratio 3:5. Tomas ends up eating 15 sweets. How many sweets were in the bag originally?

(3 marks)

- b. Finlay and Georgina share a bag of 60 chocolates. They split the chocolates in the ratio 2:3 and then Georgina gives $\frac{1}{4}$ of her sweets to her little sister. How many sweets does Georgina end up with?

(5 marks)

11. Using your calculator, answer the questions below. Write down all the numbers on your display.

- a. $3.2^3 - 4.7^2$ (1 mark)

- b. $\sqrt{6.73 + 2.8} - 1.09$ (1 mark)

12. The scale on a map is $1\text{cm} = 4\text{km}$.

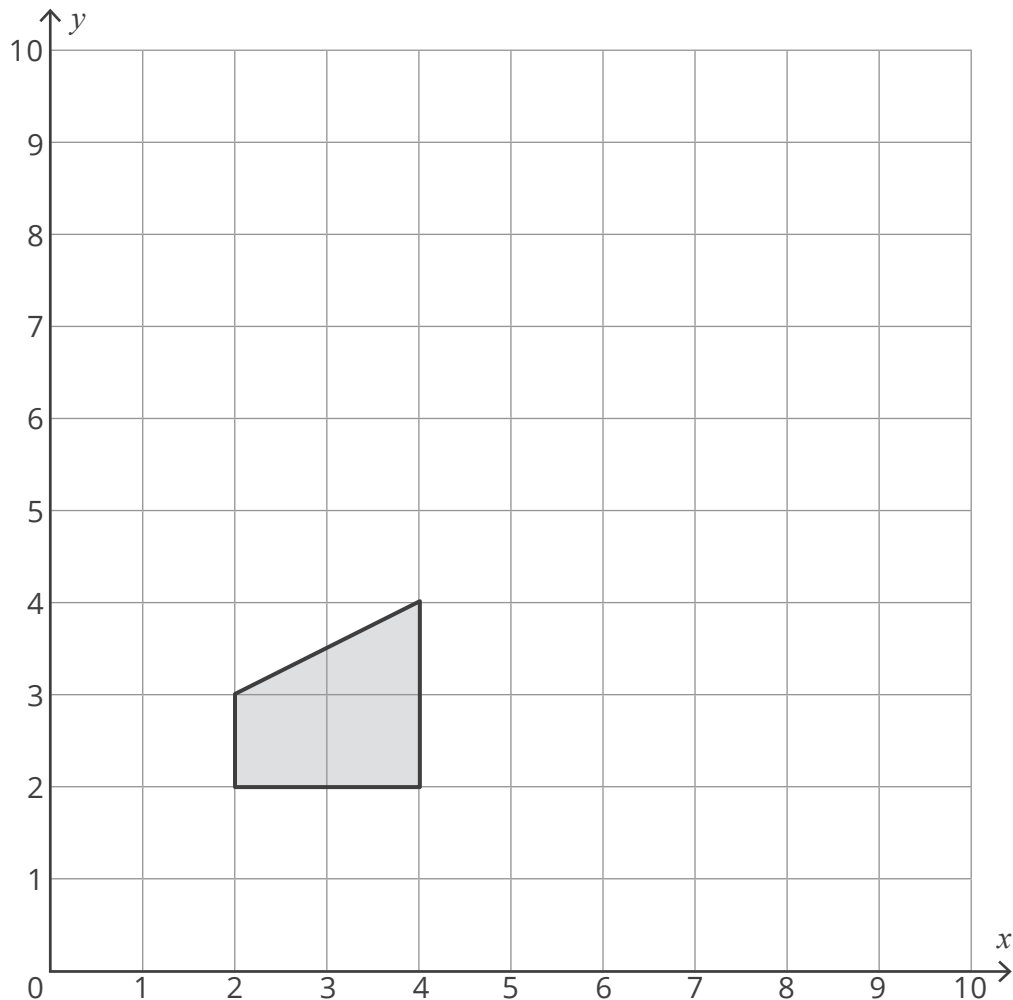
- a. Two towns on the map are 3.5cm apart. How far apart are they in real life?

(2 marks)

- b. Two lakes are 29km apart in real life. How far apart will they be on the map?

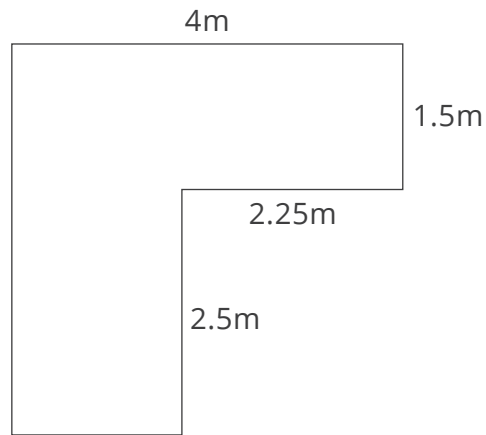
(2 marks)

13. Enlarge the shape below by scale factor 2 with centre of enlargement at $(0, 0)$.



(3 marks)

14. The floor plan of a living room is below.



- a. Calculate the area of the room. (3 marks)

- b. Carpet costs £12.80 per square metre.
How much will it cost to carpet the room? (2 marks)
