

1. Bernie spends \$32 on buying music.

This is $\frac{4}{11}$ of his monthly allowance.

Calculate his allowance.

Answer \$..... [2]

2. Write in the simplest form 900 metres : 4.5 km.

Answer 1 : [1]

3. From the following set of numbers find,

3, 4, 5, 12, 15, 19, 24

- a) a multiple of 8,

Answer [1]

- b) a prime factor of 40.

Answer [1]

4. Show how to work out $1\frac{3}{4} \div 2\frac{1}{3}$ without using a calculator.

[2]

5. Factorise completely $28xy - 21x$.

Answer [2]

6. Write down the value of,

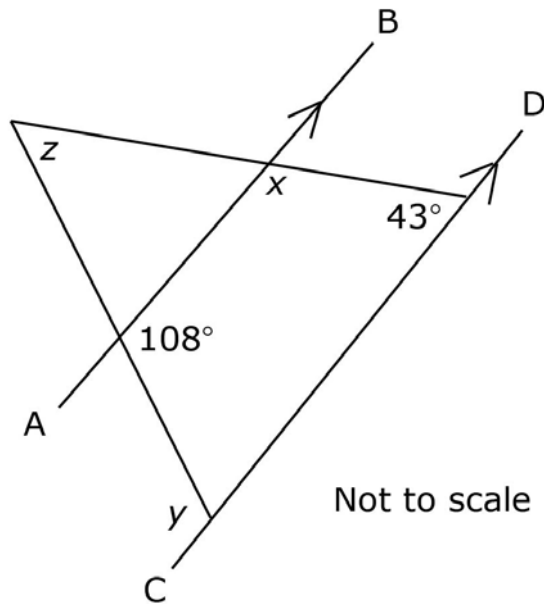
a) $\left(\frac{3}{2}\right)^{-2}$,

Answer [1]

b) $\left(\frac{1}{5}\right)^0$.

Answer [1]

7.



In the diagram the lines AB and CD are parallel.
Calculate the values of x , y , and z .

Answer $x = \dots\dots\dots$ [1]

$y = \dots\dots\dots$ [1]

$z = \dots\dots\dots$ [2]

8. The length of a field is measured as 80 metres, correct to the nearest metre.

a) Complete the statement about the length of the field.

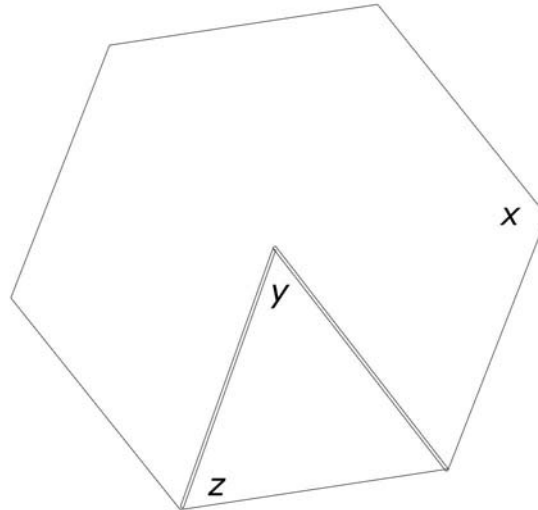
Answer $\dots\dots\dots m \leq \text{length} < \dots\dots\dots m$ [2]

b) The width of the field is known to be 22.3 metres, correct to the nearest 10 centimetres.

Write down the shortest possible width of the field.

Answer $\dots\dots\dots m$ [1]

9. The following diagram shows a regular hexagon.



Calculate the values of x , y , and z .

Answer $x = \dots\dots\dots$ [1]

$y = \dots\dots\dots$ [1]

$z = \dots\dots\dots$ [1]

10. A glass has a capacity of 140 ml.

a) Calculate how many glasses can be filled from a 2 litre carton of milk.

Answer $\dots\dots\dots$ [1]

b) How much milk would be left over?

Answer $\dots\dots\dots$ ml [1]

11. Solve the equation $3x - 5 = x + 9$.

Answer $x = \dots\dots\dots$ [2]

12. The temperatures in London for 7 days during January were recorded as follows:

-5, -3, 0, -2, 4, -3, 2.

For the seven days in London,

a) State the mode temperature,

Answer $\dots\dots\dots$ [1]

b) Evaluate the median temperature,

Answer $\dots\dots\dots$ [2]

c) Evaluate the mean (average) temperature.

Answer $\dots\dots\dots$ [2]

Answers

1. \$88

2. 1:5

3. a) 24 b) 5

4. $\frac{7}{4} \times \frac{3}{7} = \frac{3}{4}$

5. $7x(4y - 3)$

6. a) $\frac{4}{9}$ b) 1

7. $x = 137^\circ$
 $y = 108^\circ$
 $z = 65^\circ$

8. a) $79.5m \leq \text{length} < 80.5m$ b) 22.25m

9. $x = 120^\circ$
 $y = 60^\circ$
 $z = 60^\circ$

10. a) 14 b) 40 ml

11. $x = 7$

12. a) -3 b) -2 c) -1