Year 7 Mathematics

End Term 3

40 marks

40 mins Date

Instructions: 1. Answer all questions

2. Calculators permitted

semple 1

Question 1 (10 marks - 1 mark each)

- a) Write $5 \times 5 \times 5 \times 5 \times 5$ in index form:
- **b)** Write 2⁴ in factor form:
- c) Calculate $3 \times 10^2 + 2 \times 10^1 + 7$.
- d) Find all the factors of each of the following numbers:
 - i) 15

- 18
- e) Find the highest common factor of 9 and 24.
- Use factor trees to find the prime factors of 25. f)
- g) Find the square of 4
- **h)** What is the square root of 9?
- What is the cube root of 27

Question 2 (11 marks)

a) Solve each of the following equations:

i)
$$x + 3 = 10$$

ii)
$$x - 5 = 8$$

iii)
$$4x = 12$$

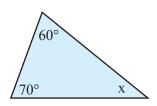
iv)
$$a \div 5 = 3$$

v)
$$3b + 4 = 22$$

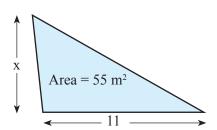
(1 each)

- **b)** For each of the following problems:
 - Write an equation.
 - Solve the equation.
 - Check the answer.

i)



ii)



iii) The printer charges an upfront \$125 and then \$0.15 per flyer. How many flyers can be printed for \$1500?

(2 each)

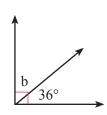


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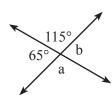
Question 3 (9 marks - 1 each)

- a) Name the type of each of the following angles:
 - i) 1379
- ii) 240°
- iii) 90°
- **b)** Find the size of the unknown angle:

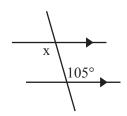
i)



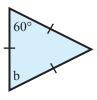
ii)



iii)



iv)



- c) Which quadrilateral am I?
 - i) My opposite sides are equal.
 - ii) My opposite angles are equal.
 - iii) My diagonals are equal.
 - iv) My four angles are 90°.
 - v) My four sides are equal.
 - vi) My diagonals meet at right angles.
 - viii) At least one pair of my opposite sides are parallel.

Question 4 (10 marks)

- a) Use a stem and leaf plot to represent the traffic speed radar readings: 58, 54, 64, 58, 69, 58, 60, 57
 Also find the range, mean, mode, and median. (5)
- **b)** Use a Dot Plot to show the shape of the following data.

The test marks (out of 10):

9, 7, 8, 7, 6, 8, 7 7, 6, 6, 8, 8, 9, 7

6, 9, 7, 8, 7, 8

Also find the range, mode, median, and mean.

(5)

Year 7 Mathematics

40 marks

Instructions: 1. Answer all questions

2. Calculators permitted

Salmale 2

End Term 3

40 mins Date

Question 1 (10 marks - 1 mark each)

- a) Write $2 \times 2 \times 2 \times 2 \times 2$ in index form:
- **b)** Write 3⁵ in factor form:
- c) Calculate $5 \times 10^2 + 4 \times 10^1 + 8$.
- d) Find all the factors of each of the following numbers:
 - **i)** 10

- ii) 20
- e) Find the highest common factor of 8 and 24.
- f) Use factor trees to find the prime factors of 20.
- g) Find the square of 3
- **h)** What is the square root of 16?
- i) What is the cube root of 64

Question 2 (11 marks)

a) Solve each of the following equations:

i)
$$x + 6 = 13$$

ii)
$$x - 3 = 7$$

iii)
$$5x = 10$$

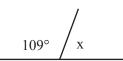
iv)
$$b \div 4 = 6$$

v)
$$4m + 2 = 22$$

(1 each)

- **b)** For each of the following problems:
 - Write an equation.
 - Solve the equation.
 - Check the answer.

i)



ii)

iii) The electrician charges \$85 callout and then \$80 per hour. How many hours of work will the plumber put in for \$650?

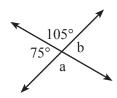
(2 each)



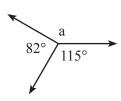
Question 3 (9 marks - 1 each)

- a) Name the type of each of the following angles:
 - i) 38°
- ii) 325°
- iii) 90°
- **b)** Find the size of the unknown angle:

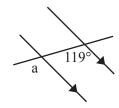
i)



ii)



iii)



iv)



- c) Which quadrilateral am I?
 - i) My opposite sides are equal.
 - ii) My opposite angles are equal.
 - iii) My diagonals are equal.
 - iv) My four angles are 90°.
 - v) My four sides are equal.
 - vi) My diagonals meet at right angles.
 - viii) At least one pair of my opposite sides are parallel.

Question 4 (10 marks)

a) Use a stem and leaf plot to represent the ages of people at the birthday party: 12, 12, 32, 12, 36, 23, 12, 12, 12.

Also find the range, mean, mode, and median.

(5)

b) Use a Dot Plot to show the shape of the following data.

The test marks (out of 10):

6, 7, 8, 9, 6, 8, 7, 8, 7, 6, 8,

9, 7, 7, 7, 6, 7, 7, 7, 8, 7

Also find the range, mode, median, and mean. (5)

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