



Subject: Grade 8 Mathematics
Topic: Mathematics: Term 2 - Exam 1
Total: 103 Marks

Name: _____
Date: _____

This image refers to question: 1

5³

Question 1: Text Input

3 marks

The correct **term** for the 5 in this image is

Give your answer as **one word**.

Question 2: Text Input

3 marks

Given the equation: $\frac{3}{x} = \frac{-9}{30}$

The value of x in this proportion is ...

[Give the number only]



Question 3: Please Fill In The Blanks

4 marks

R120 is invested for 10 years. 15% simple interest is earned per year.

The total interest earned over 10 years is (1) . The final value of the investment is (2) .

Possible Answers: R160 | R180 | R200 | R280 | R300

1	
----------	--

2	
----------	--

Question 4: Multiple Choice

4 marks

Two angles between a pair of parallel lines are co-interior.

If the size of one angle is **72°**, the size of the second angle is ...

A	108°
B	72°
C	180°
D	98°

Question 5: Multiple Choice

4 marks

$5^3 \times 5^3 \times 5 = \dots$

A	5^7
B	5^6
C	125^6
D	5^9

Question 6: Text Input

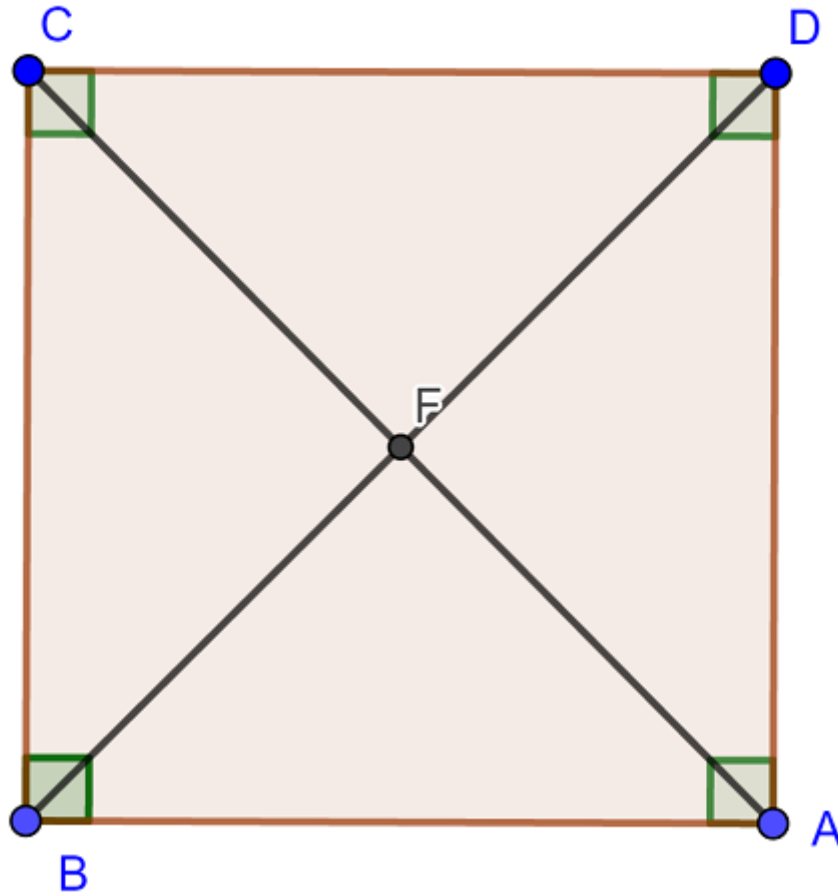
3 marks

Given the expression: $-a + bc - c$

If $a = -5$ and $b = c = -3$, the value of the above expression will be equal to...

[Give the number only]

This image refers to question: 7, 8



Question 7: Text Input

3 marks

In square ABCD,

$$\angle CFD = \dots^\circ$$

Give your answer as a number only.

Question 8: Multiple Choice

4 marks

In square ABCD,

 $\hat{DCF} = \dots$

A	90°
B	30°
C	45°
D	60°

Question 9: True/False

2 marks

If 54 is written as the product of its prime numbers, then $54 = 3^2 \times 6$ **TRUE****FALSE**

Question 10: Please Fill In The Blanks

8 marks

When solving the equation $10 = 4x - (2x + 12)$, you must first (1) , then (2) and then (3) both sides.

The solution of this equation will then be (4) .

Possible Answers: subtract 12 from | add like terms | remove the brackets | add 12 to | $x = 11$ | $x = -4$ | calculate the value of x | $x = 4$ | subtract like terms

1	
3	

2	
4	

Question 11: Text Input

3 marks

Given the expression: $dy - d^3 - y^2$ if $d = -2$ and $y = -5$, the value of the above expression will be equal to ...

[Give the number only]

--

Question 12: Multiple Choice

2 marks

The estimated value of $1,88 \times 6,43 \div 3,08$ is ...

[Round your answer to the nearest whole number]

A	4
B	5
C	3

Question 13: True/False

2 marks

If $y + 5 = 3$, then there is no solution for y

TRUE	FALSE
-------------	--------------

Question 14: Please Fill In The Blanks

4 marks

Fill in the correct sign: $\frac{22}{7}$ (1) π

π is a (2) decimal.

Possible Answers: < | Non-real | Infinite | Finite | = | >

1		2	
----------	--	----------	--

Question 15: Multiple Choice

4 marks

The scale **1 : 80** is used to draw the plans of a house.

The lounge on the plan has the dimensions **8cm × 12cm**.

Once built, the actual lounge will measure ...

- | | |
|----------|------------------------|
| A | 64cm × 96cm |
| B | 0,64cm × 0,96cm |
| C | 6,4m × 9,6m |
| D | 6,4cm × 9,6cm |
-

Question 16: True/False

2 marks

Limpho buys a **12kg** bag of tea and wants to subdivide all of it into **500g** packets.

She can make **6** such **500g** packets.

TRUE

FALSE

Question 17: True/False

4 marks

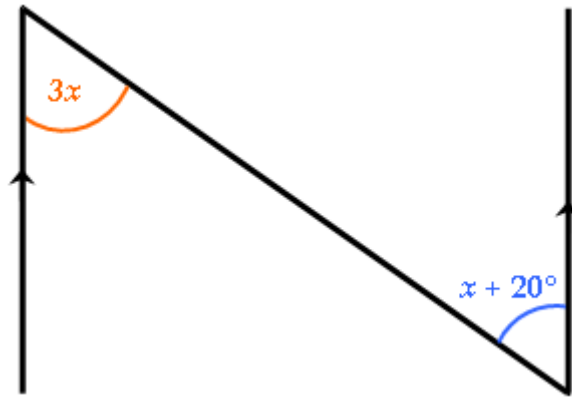
Given the equation: $\frac{5m}{3} + 5 = \frac{4m}{5} + 2$

Solving for m in this equation gives a value of $m = 45$

TRUE

FALSE

This image refers to question: 18



Question 18: Text Input

3 marks

Study the given sketch.

Calculating the size of x gives $x = \dots^\circ$

[Give only the correct number]

Question 19: True/False

2 marks

Any number multiplied or divided by 1 or raised to a power of 1, will leave the original number unchanged.

TRUE

FALSE

Question 20: Text Input

3 marks

The surface area of a cube with a volume of 512cm^3 is $\dots \text{cm}^2$.

[Give the number only]

Question 21: Text Input

3 marks

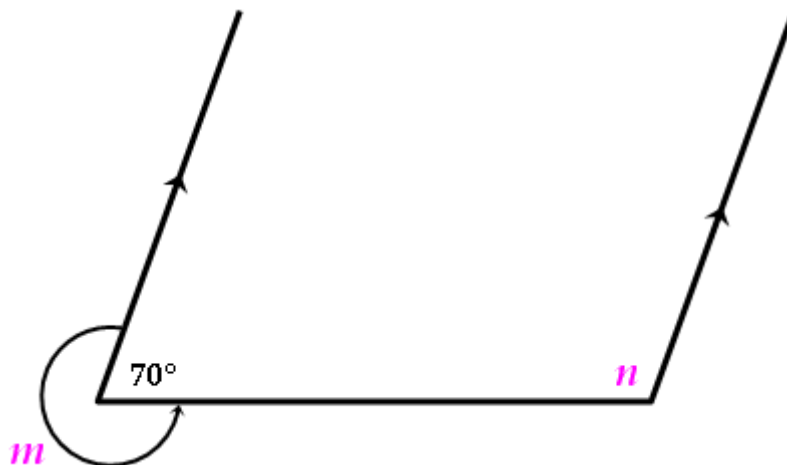
Write the number 78 as the product of its prime factors.

Write the factors in increasing numerical order.

[Give the written out product]

--

This image refers to question: 22

**Question 22: Please Fill In The Blanks**

4 marks

In the given sketch, $m = (1)$ and $n = (2)$.

Possible Answers: 110° | 70° | 140° | 290° | 20°

1	
----------	--

2	
----------	--

Question 23: Please Fill In The Blanks

4 marks

When the (1) is higher than the (2), a profit is made.

Possible Answers: total money going out | total money coming in | expenditure | exchange rate

1	
----------	--

2	
----------	--

Question 24: Multiple Choice

4 marks

 4^3 can also be written as ...

- | | |
|----------|--------------------------------|
| A | $4 \times 4 \times 4 \times 4$ |
| B | 6^3 |
| C | 4×4 |
| D | 8^2 |

Question 25: True/False

2 marks

The number 12 540 written in scientific notation is $1,254 \times 10^4$ **TRUE****FALSE****Question 26: Please Fill In The Blanks**

4 marks

A gale force wind blows at a rate of 72 km/h. This is equivalent to (1) m/s.

A hurricane force wind blows at a rate of more than 144 km/h. This is equivalent to (2) m/s.

Possible Answers: 10 | 20 | 30 | 40

1**2****Question 27: Please Fill In The Blanks**

6 marks

zero – ⟨negative number⟩ = (1)

zero × ⟨negative number⟩ = (2)

⟨negative number⟩ ÷ zero = (3)

Possible Answers: a positive number | a negative number | zero | The sign cannot be determined!

1**2****3**

Question 28: True/False

2 marks

$$2 \times 3 \times 3 \times 3 = 2 \times 9 \times 3$$

Question 29: Text Input

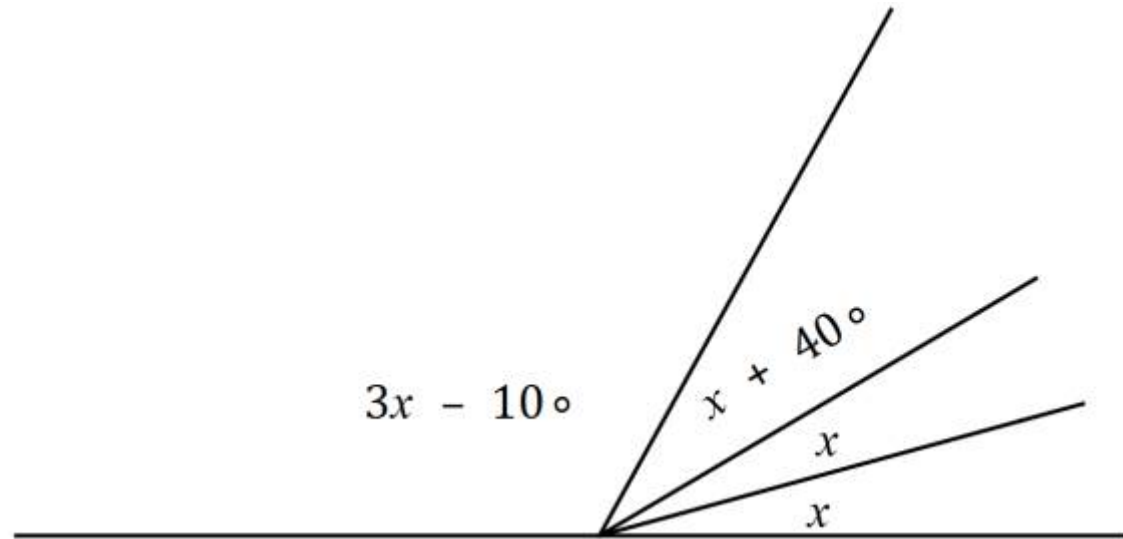
3 marks

Any even number which is divisible by 3, is also divisible by ...

All numbers are divisible by 1, so do not give 1 as an answer.

[Type the number only.]

This image refers to question: 30



Question 30: Multiple Choice

4 marks

In the sketch, four angles form a straight line.

The magnitude of the angles in degrees are: x , x , $x + 40$, $3x - 10$

Calculate the magnitude of x .

- | | |
|----------|-------------|
| A | 25° |
| B | 28° |
| C | 150° |
| D | 18° |

Total: 103 Marks