

Second Form End of Year Assessment

INSTRUCTIONS

1. You have ONE (1) HOUR to complete and submit this assessment.
2. Have pencil and paper available for any rough working.
3. Read all questions carefully then choose the answer that best matches your response.
4. You will not be allowed to re-submit.
5. If you experience any technical difficulties report IMMEDIATELY to the Head of Mathematics, pcadogan@harrisoncollege.edu.bb

The respondent's email (**null**) was recorded on submission of this form.

*** Required**

1. Email *

2. Name *

3. Form *

Mark only one oval.

2 - 1

2 - 2

2 - 3

2 - 4

2 - 5

Quiz Questions

4. If $1 \text{ m}^3 = 1000$ litres how much water can a container 6m long by 4m wide by 3m high hold? * 1 point

Mark only one oval.

- 72 liters
- 720 litres
- 7200 litres
- 72,000 litres

5. Given that $4x - 1 > 15$, the range of values of x is * 1 point

Mark only one oval.

- $x < 4$
- $x > 4$
- $x < 3.5$
- $x > 3.5$

6. Jackson works for an hourly rate of \$14.00. If he works 4 hours overtime at time-and-a-half and 3 hours overtime at double-time. What was his total Overtime Pay? * 1 point

Mark only one oval.

- \$84
- \$147
- \$168
- \$196

7. Mary invested \$500 for 3 years at 5% per annum. John invested \$300 at the same rate. If they both received the same amount of money in simple interest, for how many years did John invest his money? *

1 point

Mark only one oval.

- 1.7
- 3
- 5
- 10

8. 1820 written in standard form is *

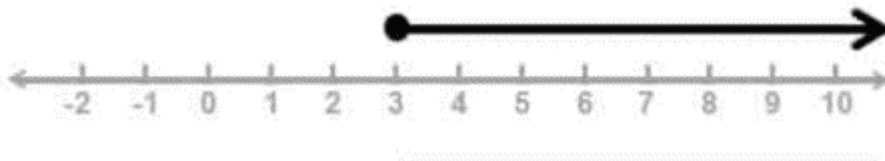
1 point

Mark only one oval.

- 18.2×10^2
- 1.82×10^4
- 1.82×10^3
- 1.82×10^2

9. Which inequality best represents the number line below? *

1 point



Mark only one oval.

- $x \geq 3$
- $x > 3$
- $x < 3$
- $x \leq 3$

10. If \$8000 is borrowed at the rate of 5% per annum for 4 years, the simple interest is *

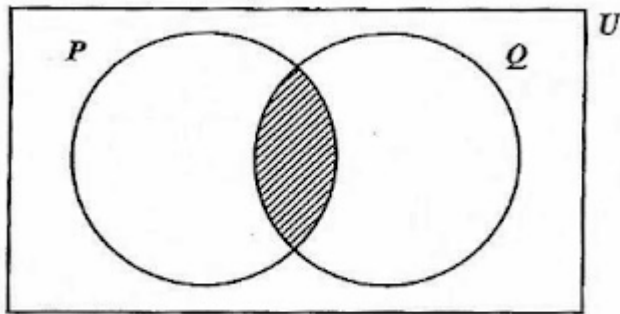
1 point

Mark only one oval.

- \$ 400
- \$ 1600
- \$ 240
- \$ 320

11. If $P = \{\text{factors of } 6\}$ and $Q = \{\text{factors of } 4\}$, then the shaded region on the Venn diagram below represents *

1 point



Mark only one oval.

- $\{\}$
- $\{1, 2\}$
- $\{4, 6, 8, \dots\}$
- $\{12, 24, 36, \dots\}$

12. If $7x + 3 = 2x - 12$ then the value of x is *

1 point

Mark only one oval.

1

3

- 1

- 3

13. The next term in the sequence 2, 6, 12, 20, 30... is *

1 point

Mark only one oval.

40

42

50

60

14. By the distributive law, $52 \times 8 + 52 \times 12 =$

1 point

Mark only one oval.

52×20

$52 + 20$

$60 + 64$

60×64

15. In a class of 32 students, 17 study Music and 20 study Art. What is the LEAST number of students who study BOTH Music and Art? 1 point

Mark only one oval.

- 3
- 5
- 12
- 15

16. John had n marbles and Max had four times as many as John. Max gives Tom 8 of his marbles. How many marbles does Max now have? 1 point

Mark only one oval.

- $4 + n - 8$
- $n - 8$
- $4n - 8$
- $4n + 8$

17. Solve: 1 point

$$10 - 2(x - 3) = 0$$

Mark only one oval.

- $x = 3$
- $x = -3$
- $x = 8$
- $x = -8$

18. Factorize completely.

1 point

$$14pq^2 + 21pq$$

Mark only one oval.

$7p(q^2 + 3q)$

$7q(2p + 3q)$

$7pq(2q+3)$

$7q^2(2p + 3p)$

19. If $6(2x + 1) = 42$, then $x = *$

1 point

Mark only one oval.

-4

$1/4$

3

4

20. Solve

1 point

$$\frac{3x}{4} + \frac{x}{5} =$$

Mark only one oval.

$$\frac{4x}{9}$$

 Option 1

$$\frac{19x}{20}$$

 Option 2

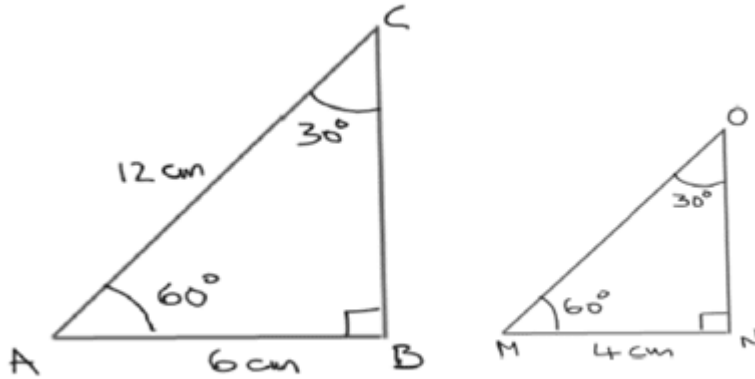
$$\frac{17x}{20}$$

 Option 3

$$\frac{4x}{20}$$

 Option 4

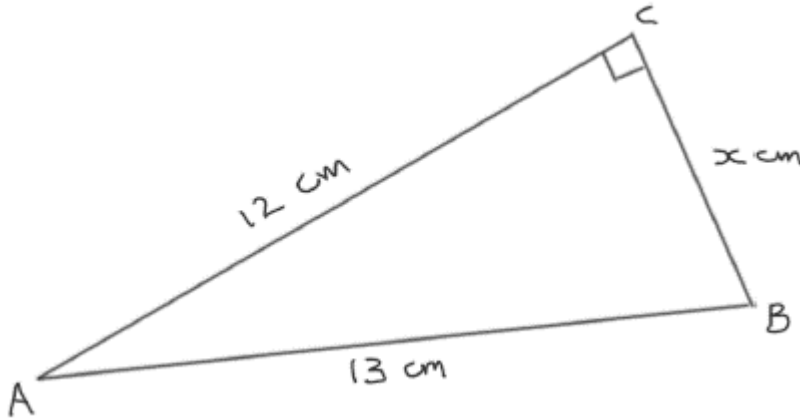
21. The following are a pair of similar triangles. The length of MO in centimeters, 1 point is



Mark only one oval.

- 6 cm
- 8 cm
- 9 cm
- 10 cm

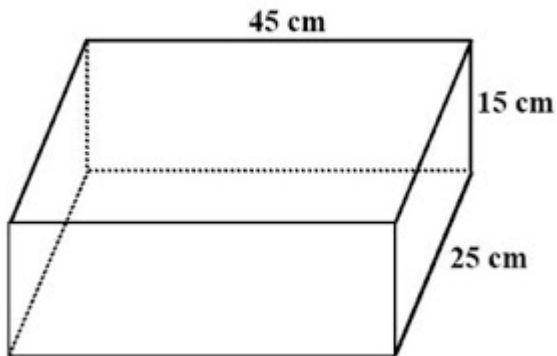
22. In the triangle ABC, not drawn to scale, what is the value of x in centimetres? 1 point



Mark only one oval.

- 5 cm
 6 cm
 7 cm
 18 cm

23. How many boxes 3 cm by 5 cm by 5 cm can fit into the carton below. * 1 point



Mark only one oval.

- 75
 150
 225
 275

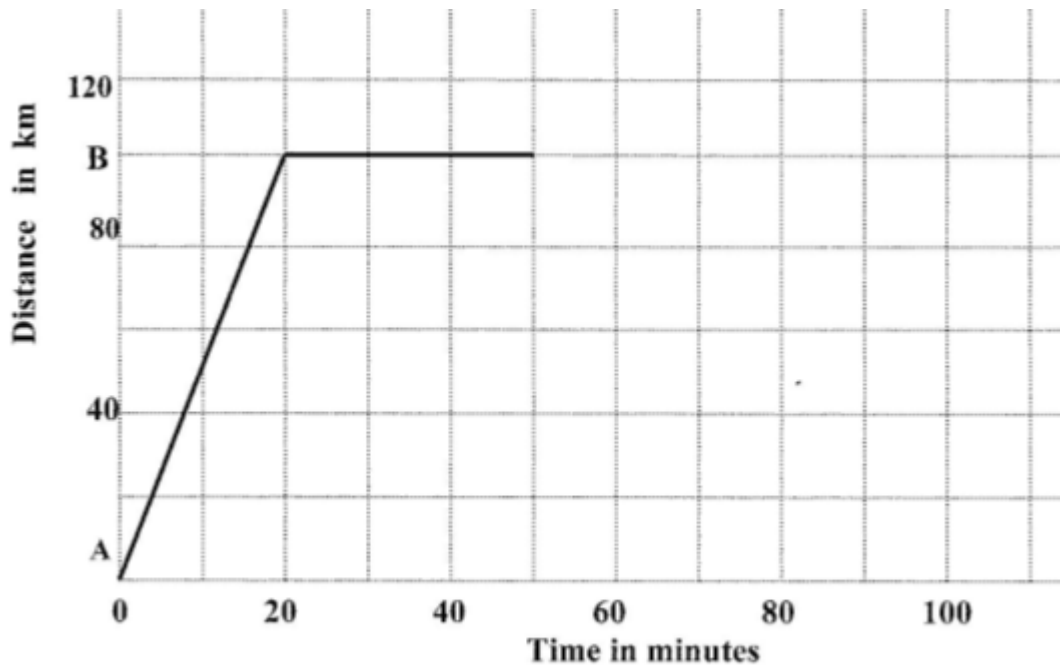
Long
answer

You must enter your answer in the space provided as a NUMERICAL value ONLY. Answers that contain letters or any other symbols will not be recognized.

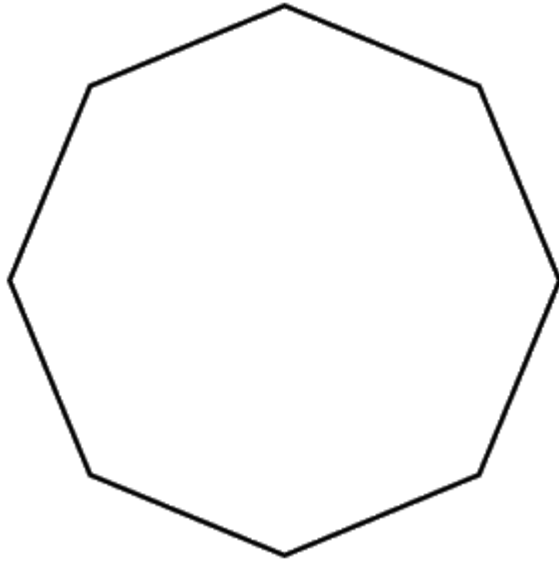
24. At a mask manufacturing company out of every 200 masks, 55 had defective elastic, 18 had defective filters and 140 had no defects at all. If x represents the number of masks with BOTH defective elastic and filters, calculate and enter value of x . (Enter a whole number.) 2 points

25. A point R on level ground is situated 4.5 m from the base of a vertical tree, Q. The distance from the top of the tree P to the point R is 13 m. Calculate the height of the tree PQ. (Enter a decimal value) 2 points

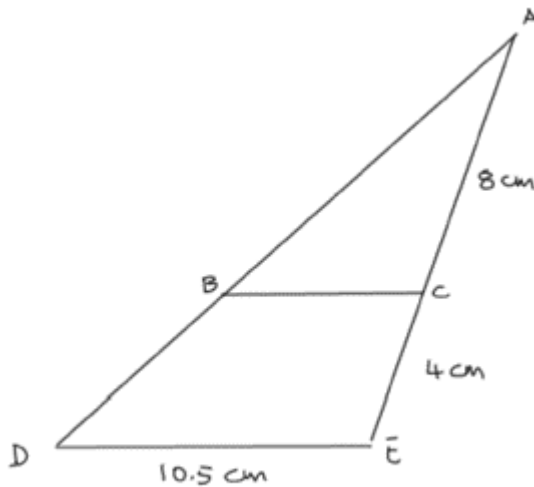
26. The distance-time graph below shows the journey of a train from Town A to Town B. Determine the average speed of the train in km/h on its journey from Town A to Town B. (Enter numerical value ONLY, no units) 2 points



27. For this REGULAR polygon given below, determine the size (in degrees) of EACH interior angle. 2 points



28. Triangle ADE is similar to triangle ABC. Find the length of BC in cm. (Enter numerical value only) 2 points



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