

Model Answer

Name	Gihan		
Class	A	Term	2
Year	8	Quiz Number:	3

1) Draw a ring around the part of a circle that is not a straight line. [1]

diameter      chord      radius      circumference      tangent

2) Work out.

$-6 \times -13$  [1]

..... 78 .....

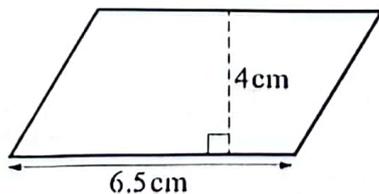
3) Complete each of these calculations with the correct whole number. [3]

$13^0 =$  ..... 1 .....

$(2^3)^2 =$  ..... 64 .....

$11^{15} \div 11^{13} =$  ..... 121 .....

4) The diagram shows a parallelogram.



NOT TO SCALE

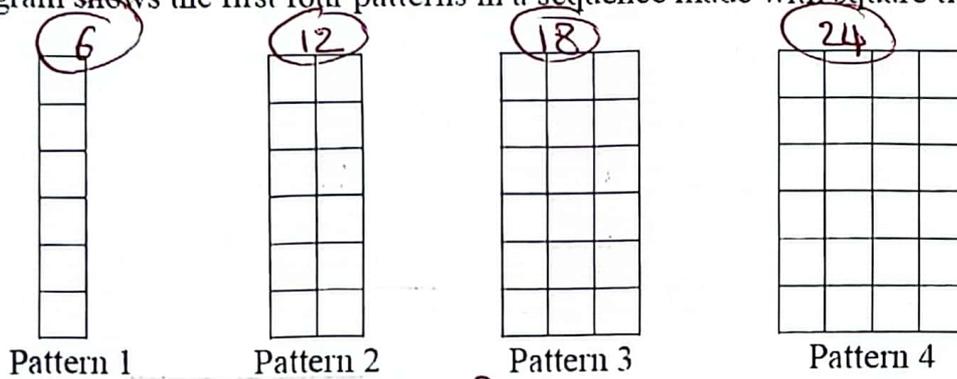
[1]

Work out the area of the parallelogram.

Base  $\times$  H =  $6.5 \times 4 = 26$

..... 26 .....  $\text{cm}^2$

5) The diagram shows the first four patterns in a sequence made with square tiles.



Multiples of 6

Draw a ring around the exact number of tiles that could make a pattern in this sequence.

32 tiles

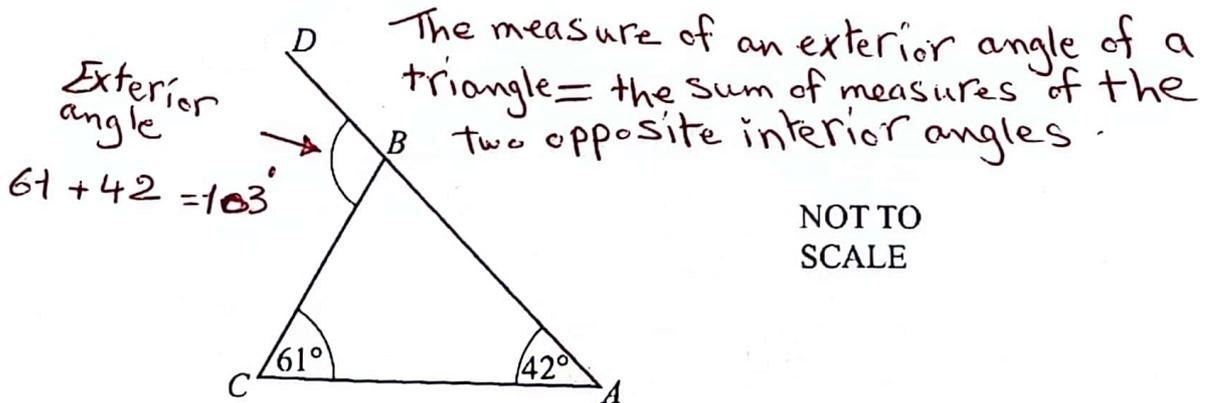
64 tiles

96 tiles

602 tiles

[1]

6) The diagram shows a triangle  $ABC$ .



$ABD$  is a straight line.

Find angle  $CBD$ .

.....103.....° [1]

7) Work out.

$$\begin{aligned} & \sqrt{3^2 \times 2^3 + 28} \\ &= \sqrt{9 \times 8 + 28} \\ &= \sqrt{100} = 10 \text{ or } -10 \end{aligned}$$

...±10... [2]

8) a) The  $n$ th term of a sequence is  $\frac{n}{2} + 5$

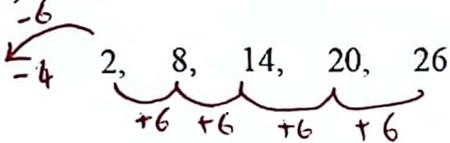
Work out the 6th term of the sequence.

[1]

$$\frac{6}{2} + 5 = 3 + 5 = 8$$

..... 8 .....

b) Here are the first five terms of a different sequence.

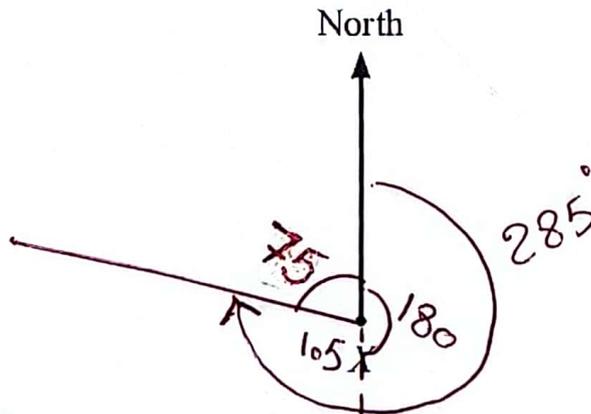


Find the  $n$ th term of this sequence.

[2]

.....  $6n - 4$  .....

9) Draw a bearing of  $285^\circ$  from point X.



[1]

10) Find the value of each expression when  $x = -2$  and  $y = 5$

$4(y - x) =$  ..... 28 .....

$4(5 - (-2)) = 4(7) = 28$

$10y - 3x^2 =$  ..... 38 .....

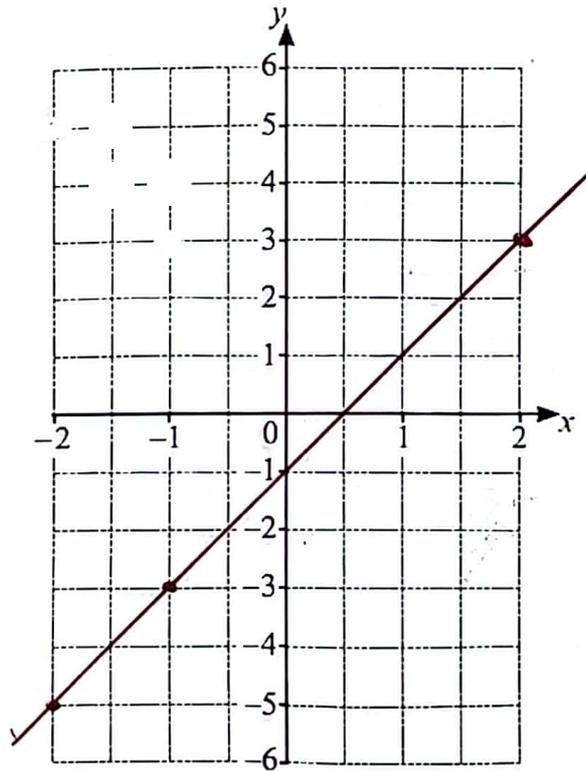
$10(5) - 3(-2)^2$   
 $= 50 - 3(4)$   
 $= 50 - 12 = 38$

[2]

11) Complete the table for  $y = 2x - 1$

x	-2	-1	2
y	-5	-3	3

Draw the graph of  $y = 2x - 1$  on the grid.



[3]

12) Here is an inequality.

$$x \leq 7$$

Write down the greatest possible value of  $x$ .

$$x = \dots\dots\dots 7 \dots\dots\dots [1]$$

13) Expand the brackets.

$$5x(x + 4)$$

$$\dots\dots\dots 5x^2 + 20x \dots\dots\dots [1]$$

14) Rajiv sells three different sizes of cups of coffee in the ratio

large : medium : small = 3 : 9 : 2	:	Total
	=	14
		238

He sells 238 cups of coffee in total.

Work out how many small cups of coffee Rajiv sells.

$$\frac{2 \times 238}{14} = 34$$

$$\dots\dots\dots 34 \dots\dots\dots [2]$$

15) Here is an inequality.

$$x \leq 7$$

Write down the greatest possible value of  $x$ .

$$x = \dots\dots\dots 7 \dots\dots\dots [1]$$

16) Here is a function machine.



Complete the table showing inputs and outputs for the function machine.

Input ( $x$ )	Output ( $y$ )
-10	-35
4	7

[2]

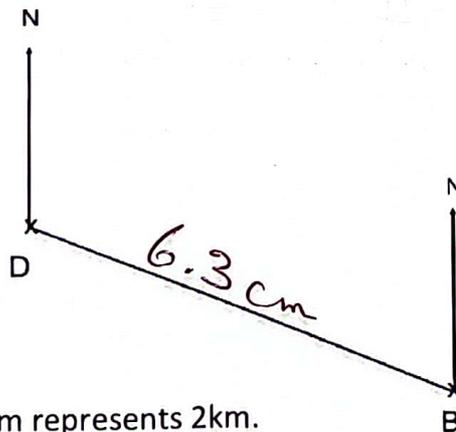
17) Complete these sentences with the correct rounded number.

307021 correct to 2 significant figures is .....310000.....

0.0389647 correct to 3 significant figures is .....0.0390.....

[2]

18) The diagram shows the position of point B and point D.



The scale of the diagram is 1cm represents 2km.

a) Work out the actual distance between the dock and the boat.

$$6.3 \times 2 = 12.6$$

$\approx$  .....12.6.....km

b) Measure the bearing of the boat B from the dock D

$\approx$  .....112..... $^{\circ}$  [2]

Good Luck ☺

Total Marks

30