Strand B (pattern and algebra) Test

A. Choose the most appropriate response.

1. Fine the value of 'x' from the equation, $5 - 3x = -16$

   a) X= 7

   b) X= -7

   c) X= 8

   d) X= -8

2. Which of the following expressions represents the pattern rule for the sequence: 3, 6, 9, 12, ...?

   a) n+1

   b) 2n

   c) 3n

   d) 14n -1

3. What is the intersection point of the line with equation; $y = -3x + 3$ and $y = -5x - 1$?

   a) (-2,-3)

   b) (2,3)

   c) (4,3)

   d) (-4,0)

4. The slope of the line with the point, (4,9) and (7,15) is

   a) m= 3

   b) m= 2

   c) m= 6

   d) m= 0

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5. The slope of the graph is said to be positive;

   a) If the line moves from left to right upward

   b) If the line moves from left to right downward

   c) If the line moves parallel to x- axis

   d) If the line moves parallel to y-axis

6. What is the slope of the line represented by the graph of the equation $y = -\frac{1}{2}x + 4$

   a) m=2

   b) m= -2

   c) $m = \frac{1}{2}$

   d) $m = -\frac{1}{2}$

7. Complete the sequence of a pattern 2, 5, 8, 11, 14... , …?

   a) 16,18

   b) 17,19

   c) 18,20

   d) 17,20

8. Which of the following patterns would be represented by a graph with a negative slope?

   a) y= -3x +2

   b) y = 2x + 5

   c) $y = \frac{1}{2}x - 3$

   d) $y = \frac{1}{4}x + 6$

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9. The difference between two whole numbers is 66. The ratio of the two numbers is 2: 5. The two numbers are:

   a) 60 and 6

   b) 100 and 33

   c) 110 and 44

   d) 99 and 33

10. Subtract (5 - 4x) – (2x – 3).

   a) 6x – 2

   b) -2x -2

   c) -6x + 8

   d) 6x + 8

11. The polynomial with three terms is

   a) Monomial

   b) Binomial

   c) Polynomial

   d) Trinomial

12. The pattern rule for the sequence; 15 , 8 , 1 , -6 is

   a) tv = 22 – 7tn

   b) tv = 7tn – 22

   c) tv = -7tn + 22

   d) tv = 22 + 7tn

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13. Dorji is 150 km from home when he starts a trip toward home. He travels at a speed of 29 km/h. Which equation below represents the expression.

a) $20 = 150 - 29n$

b) $150 = 29n + 20$

c) $150n = 29 + 20$

d) $20n = 150 - 29$

14. The perimeter of the rectangle is 20cm. If the length of the rectangle is 6cm, then its breadth will be:

a) 4 cm

b) 6 cm

c) 10 cm

d) 14cm

15. If x is an even number, then the next even number is:

a) x+1

b) x+2

c) x+3

d) x+4

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