

Strand B (pattern and algebra) Test

A. Choose the most appropriate response.

1. Find 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) $m = 0$

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

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) $tv = 22 + 7tn$

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) $x+4$