

Grade 8 – Standard 8

11. The following algebraic expressions could represent which of the numeric sequences below?

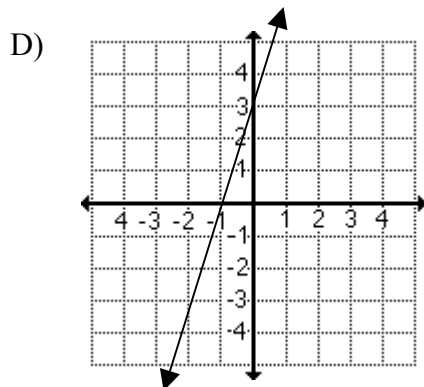
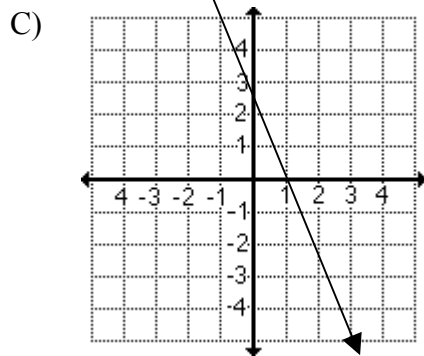
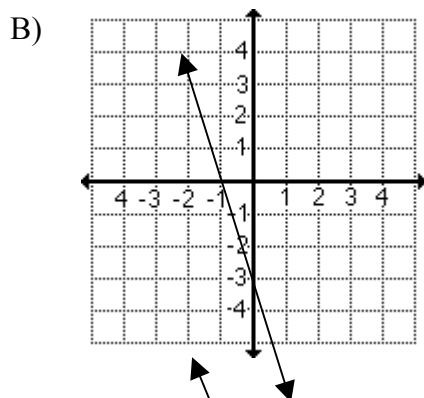
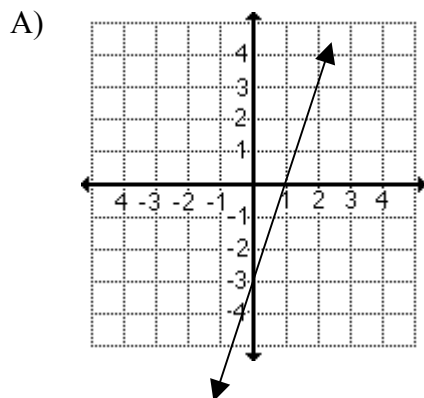
$$\mathbf{x, \quad x + 4, \quad x + 8, \quad x + 12}$$

- A) 0, 1, 2, 3
B) -6, -2, 0, 2
C) 3, 6, 9, 12
D) 3, 7, 11, 15
15. If the table below was extended, which ordered pair would appear in the table?

x	y
1	3
2	5
3	7

- A) (4, 8)
B) (5, 11)
C) (6, 10)
D) (10, 30)

19. Which graph represents the equation $y = -3x - 3$?



22.

x	0	1	2	3	4
y	2	5	8	11	14

What is the relationship between x and y?

- E) $y = x + 2$
- F) $y = 2x + 2$
- G) $y = 2x + 3$
- H) $y = 3x + 2$

30. If x represents an odd integer, which of the following represents the next three **consecutive odd** integers?

- A) $x+2, x+4, x+6$
- B) $x+1, x+2, x+3$
- C) $x+1, x+3, x+5$
- D) 1, 2, 3

37. The students at West Middle School are holding a spirit day to raise money. They hope to raise \$350. Each student who pays \$1.25 will be permitted to wear a hat during school on that day. Which equation would be used to determine the number of students (S) who need to participate in order to raise the \$350?

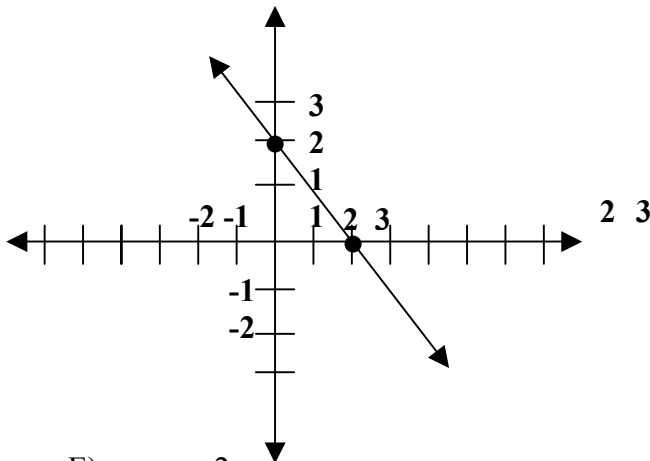
- E) $S = \frac{350}{1.25}$
- F) $S = 325 \times 1.25$
- G) $S = \frac{1.25}{350}$
- H) $S = 350 \times 1 + .25$

39. In order to solve the equation below, what should you do first?

$$\frac{2}{3}x - 5 = 13$$

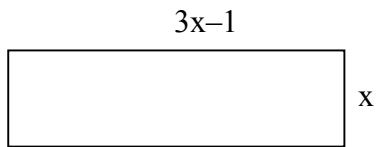
- E) subtract $\frac{2}{3}$ from both sides of the equation
- F) subtract 5 from both sides of the equation
- G) add 5 to both sides of the equation
- H) multiply both sides of the equation by $\frac{2}{3}$

45. Which equation describes this graph?



- E) $y = 2x$
 - F) $y = -x + 2$
 - G) $y = 2$
 - H) $y = \frac{1}{2}x$
47. Diane charges \$5/hour to mow a lawn plus an additional \$10 per lawn to cover the costs of maintenance on her mowing equipment. Which formula would be used to calculate the total dollar cost she should charge for mowing a lawn that takes h hours to complete?
- E) $C = 5h + 10$
 - F) $C = 10h + 5$
 - G) $C = 15h$
 - H) $C = h + 5 + 10$

55. Which expression represents the perimeter of the rectangle below?



- A) $(3x - 1)(x)$
B) $(3x - 1) + (x)$
C) $(6x - 1) + (2x)$
D) $(3x - 1) + (x) + (3x - 1) + (x)$
62. If you were to find the value of 9^{21} , what is the **units** digit of that value?
- E) 1
F) 7
G) 8
H) 9
64. A bag contains 47 candies. John and Marsha want to share them so that Marsha receives 5 more than John. Which equation represents this situation?
- E) $x + 5 = 47$
F) $2x = 47$
G) $(x) + (x+5) = 47$
H) $x = 47 - 5$
69. Which equation shows that the sum of x and 2 is twice as much as 6?
- A) $x = 2 \cdot 2 \cdot 6$
B) $x + 2 \cdot 2 = 6$
C) $2(x + 2) = 6$
D) $x + 2 = 2 \cdot 6$
72. For which equation is $(4, 3)$ a solution?
- E) $x - y = 7$
F) $x + y = 7$
G) $y = x = 1$
H) $x + y = 12$