VLO-Linear Equations-Week 2

45 Questions
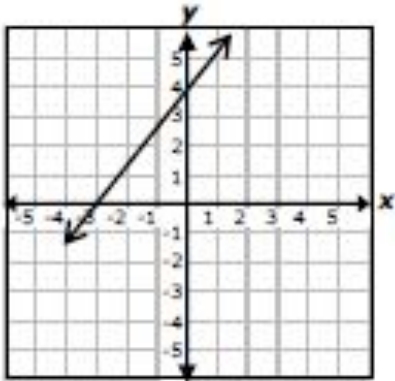
1. A fitness club opens with 80 members. Each month the membership increases by 15 members. Which equation represents the relationship between the number of months the club has been opened, x, and the total fitness club membership, y?

☐ a) y=15x
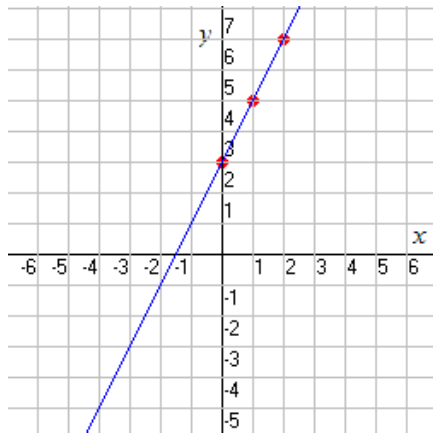
☐ b) y=15x+80

☐ c) y=x+15

☐ d) y=80x+15

2.

What is the y-intercept of the line graphed below?

☐ a) 3

☐ b) 4

☐ c) -3

☐ d) 4/3

3.

Which equation represents the following graph?

- [ ] a) y = 3x + 2
- [ ] b) y = -2x + 3
- [ ] c) y = 2x + 3
- [ ] d) y = -3x + 2

4.

x	y
0	5
1	10
2	15
3	20
4	25
5	30

Which equation best represents the relationship between x and y in the table shown?

- [ ] a) y= 5x+5
- [ ] b) y=1/5x+5
- [ ] c) y=15x+5
- [ ] d) y=10x+5

5.   What is the y-intercept in the equation?
      y = 5x - 4

- [ ] a) 5
- [ ] b) -4
- [ ] c) -5
- [ ] d) 4

6.

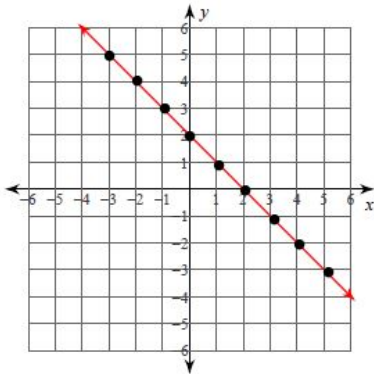| x	y
-2	-2
-1	2
0	6
1	10
2	14

Find the slope from the table.

☐ a) -4

☐ b) 1

☐ c) 4

☐ d) -2

7.

What is the correct equation in Slope-Intercept Form?
(y = mx +b)
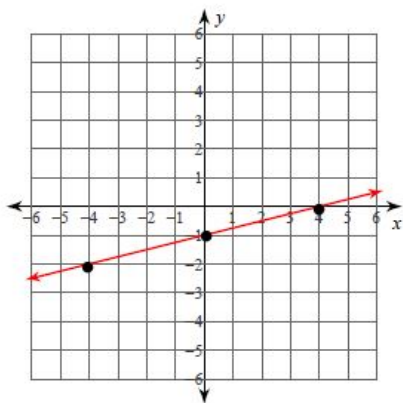
☐ a) y = x + 2

☐ b) y = 2x - 1

☐ c) y = -x + 2

☐ d) y = -2x - 1

8.

What is the correct equation in Slope-Intercept Form?
(y = mx +b)
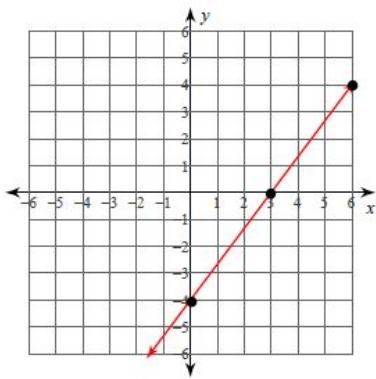
☐ a) y = 1/3x - 1

☐ b) y = 1/4x -1

☐ c) y = -1/3x +1

☐ d) y = -1/4x + 1

9.

What is the correct equation in Slope-Intercept Form?
(y = mx +b)

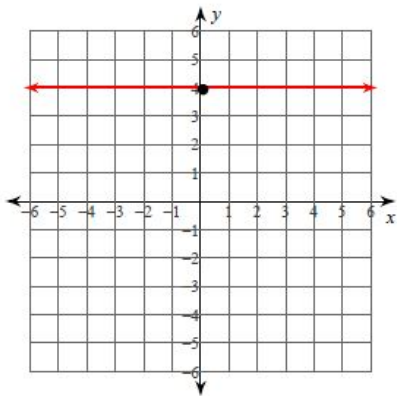☐ a) y = 4/3x - 4

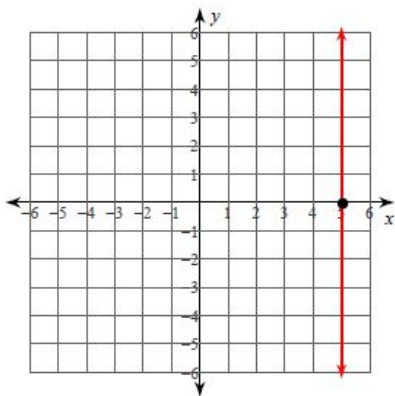☐ b) y = -4/3x + 3

☐ c) y = 4/3x + 4

☐ d) y = -4/3x +3

10.

What is the correct equation in Slope-Intercept Form?
(y = mx +b)

☐ a) x = 4

☐ b) y = 4

11.

What is the correct equation?

☐ a) x = 5

☐ b) y = 5

☐ c) x = - 5

☐ d) y = -5

12. What is the slope of the line passing through the points (3,5) and (-1,7)?

- [ ] a) -1/2
- [ ] b) -1
- [ ] c) -2
- [ ] d) 1/2

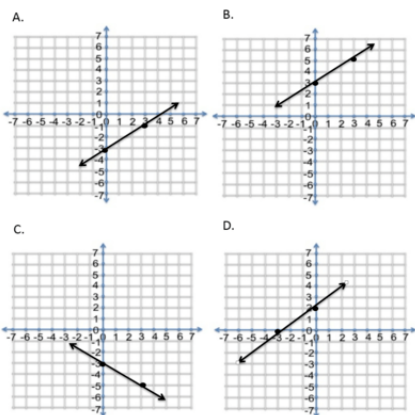13. What is the equation for the line with a slope of 7 and passes through (0,1)?

- [ ] a) y = -7x + 1
- [ ] b) y = 7x + 1
- [ ] c) y = -1/7x - 1
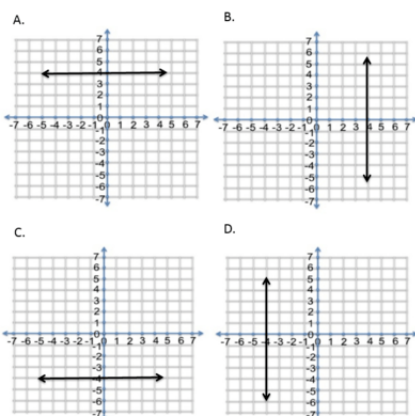- [ ] d) y = -1/7x + 1

14.

Graph. y = 2/3x - 3

- [ ] a) a
- [ ] b) b
- [ ] c) c
- [ ] d) d

15.

Graph. y = -4

- [ ] a) a
- [ ] b) b
- [ ] c) c
- [ ] d) d

16.
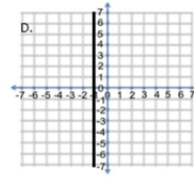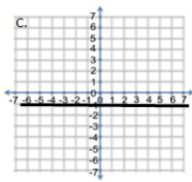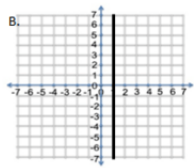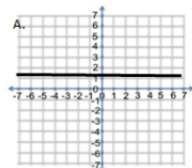
Graph. x = 1

☐ a) a   ☐ b) b

☐ c) c   ☐ d) d

17.

x	y
-3	0
0	6
3	12
6	18

Given the table, write the equation in the slope-intercept form.

☐ a) y = 1/3x + 6   ☐ b) y = 3x + 6

☐ c) y = 2x + 6   ☐ d) y = 1/2x + 6

18. Bob has $150 in his savings account and saves $40 per month.

☐ a) y=150 + 40   ☐ b) y=40x + 150

☐ c) y=150x + 40

19.

Table I	
Input	Output
0	20
1	17
2	14
3	11
4	8

Find the initital value

☐ a) 20   ☐ b) 0

☐ c) 17   ☐ d) 1

20.

Time (seconds)	Distance (ft)
0	3
2	8
6	20
9	10
15	10

What is the initial value?

☐ a) 3   ☐ b) 0

☐ c) 2   ☐ d) 8

21.
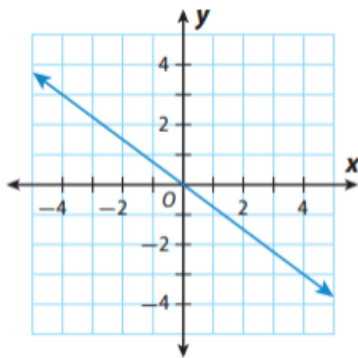
Find the intial value

☐ a) 0   ☐ b) 3

☐ c) 4   ☐ d) 5

22.

Input	Output
1	11
2	13
3	15
4	17
5	19

Find the initial value

☐ a) 1

☐ b) 9

☐ c) 11

☐ d) 0

23.

Time (min)	Water left in pool (gal)
10	80
20	60
30	40
40	20

Find the rate of change.

☐ a) -2 minutes per gallon

☐ b) -20 minutes per gallon

☐ c) -2 gallons per minute

☐ d) -20 gallons per minute

24. Elijah earn $200 for 8 hours of work. What is the unit rate (in dollars per hour)?

☐ a) $50 per hour

☐ b) $12 per hour

☐ c) $192 per hour

☐ d) $25 per hour

25. What is the slope of the equation: 2y + 4x = 8

☐ a) 4

☐ b) -2

☐ c) 2

☐ d) -4

26. Which situation can be represented by y=12x-4?

Hint: Pay attention to your sign for your y-intercept

- [ ] a) The number of eggs, y, in x dozen eggs for sale after 4 dozen eggs are sold
- [ ] b) The cost, y, of buying x movie tickets that sell for $8 each
- [ ] c) The cost, y, after a $4 discount, of buying x T-shirts that sell for $12 each
- [ ] d) The number of inches, y, in an x-foot-tall tree after cutting off 4 feet

27. The point where the line crosses the y-axis is called the:

- [ ] a) origin
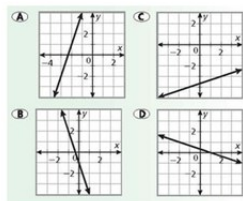- [ ] b) x-intercept
- [ ] c) y-intercept
- [ ] d) slope

28.

Find the missing OUTPUT value.

$y = x - 3$	
x	**y**
-3	-6
-1	-4
2	-1
4	1
5	

- [ ] a) 8
- [ ] b) -2
- [ ] c) 2
- [ ] d) -8

29.

Which of these lines has a slope of -3?

- [ ] a) A
- [ ] b) B
- [ ] c) C
- [ ] d) D

30. What is the slope-intercept form of a line?

☐ a) $Ax + By = C$

☐ b) $y = mx + b$

☐ c) $y - y1 = m(x - x1)$

☐ d) $y = Ax + By$

31. What is standard form of a line?

☐ a) $y = mx + b$

☐ b) $Ax + By = C$

☐ c) $y - y1 = m(x - x1)$

☐ d) $y = Ax + By$

32. Which equation is written in STANDARD form?

☐ a) $y = 1/2x + 2$

☐ b) $y - 3 = -5(x + 2)$

☐ c) $-7x + 2y = 9$

☐ d) $3x + 2 = y$

33. Which of the following are written in standard form?

☐ a) $y=3x-5$

☐ b) $3x+16=5y$

☐ c) $2/3 x + 9/13 y = 21$

☐ d) $5x+7y=-12$

34. What is the y-intercept of
    $2x-5y=35$?

☐ a) $(0,-7)$

☐ b) $(-7,0)$

☐ c) $(35/2, 0)$

☐ d) $(0,35/2)$

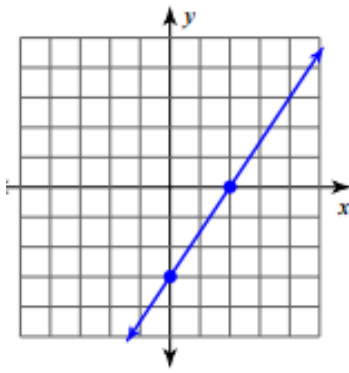35. If m=3 and b=6, what is the correct slope intercept equation?

☐ a) $y=3-6$

☐ b) $y=3x-6$
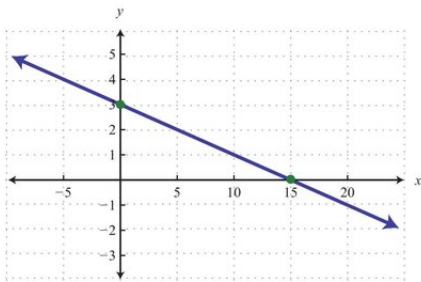
☐ c) $y=3x+6$

☐ d) $y=6x+3$

36.

Find the slope.

☐ a) 3/2

☐ b) -3/2

☐ c) (-0,-3)

☐ d) none of the above

37.

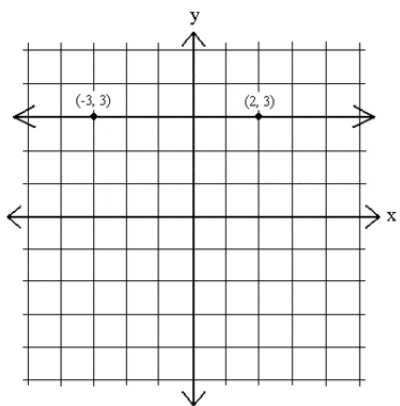What type of slope does the following graph have?

☐ a) Postive

☐ b) Negative

☐ c) Zero Slope

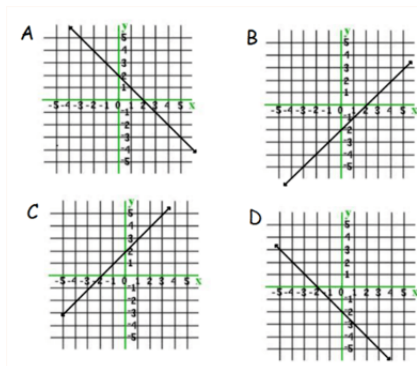☐ d) Undefined

38.

What type of slope does the graph have?

☐ a) Zero

☐ b) Undefined

☐ c) Negative
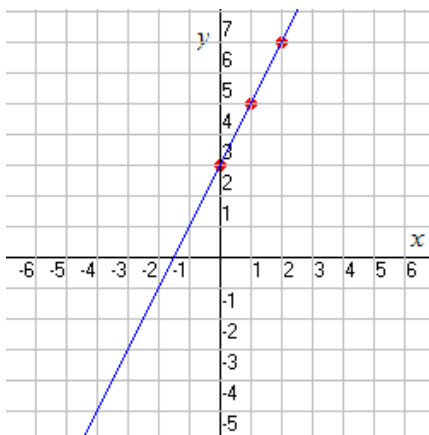
☐ d) Positive

39.

Which is the graph of y= -x + 2?

- [ ] a) A
- [ ] b) B
- [ ] c) C
- [ ] d) D
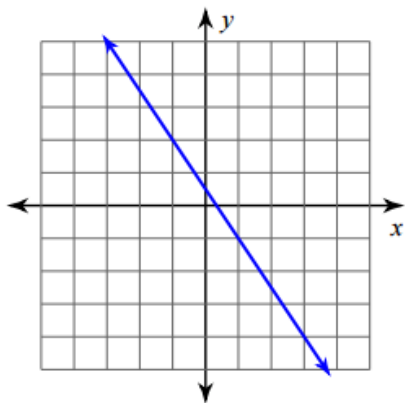
40.

Which equation represents the following graph?

- [ ] a) $y = 3x + 2$
- [ ] b) $y = -2x + 3$
- [ ] c) $y = 2x + 3$
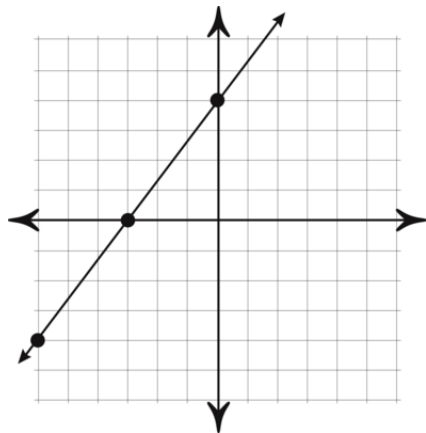- [ ] d) $y = -3x + 2$

41.

Find the slope of the line.

- [ ] a) 3/2
- [ ] b) 2/3
- [ ] c) -3/2
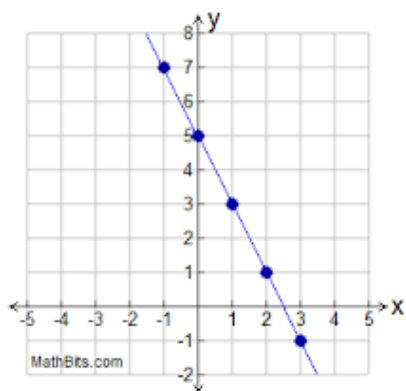- [ ] d) -2/3

42.

Write the equation that best matches the graph shown.

☐ a) y = 4x

☐ b) y = 4x - 3

☐ c) y = 4/3 x + 4

☐ d) y = 4/3 x - 3

43.

What is the equation of this line in slope-intercept form?

☐ a) y = 2x + 5

☐ b) y = -2x + 5

☐ c) y = -2x

☐ d) y = 5

44. A holiday meal costs $12.50 a person plus a delivery fee of $30.

☐ a) y = 30 + 12.5x

☐ b) y = 12.5 + 30

☐ c) y = 12.5 + 30x

☐ d) y = 30 - 12.5x

45. Sonia has $40 in her lunch account and pays $2 each day to eat lunch.

☐ a) y = 40 + 2x   ☐ b) y = 40 - 2x

☐ c) y = 2 + 40x   ☐ d) y = 2 - 40x