

# Math 980 Modules 3 and 4 Objectives Review Answer Key

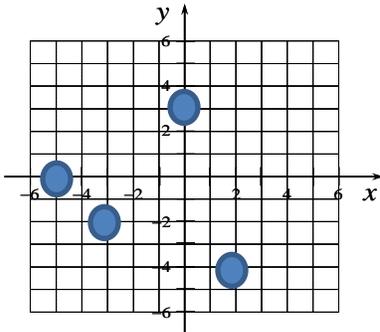
## Module 3 - Linear Equations in Two Variables

### 3.1 Interpreting Line Graphs

- 1.) An increase of 300 people.
- 2.) \$173,600
- 3.) 250%

### 3.2 Plotting Points

4.)

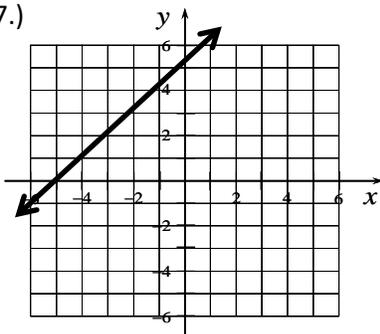


### 3.2 Determine Whether the Point is a Solution

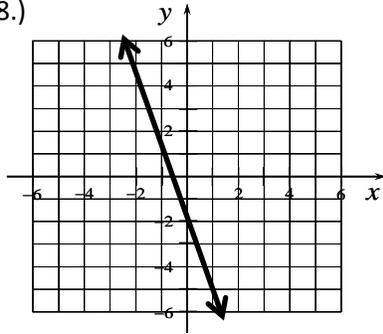
- 5.) No
- 6.) Yes

### 3.3 Graph Linear Equations

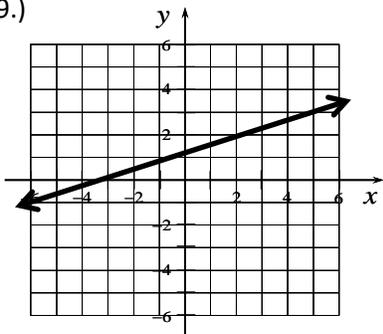
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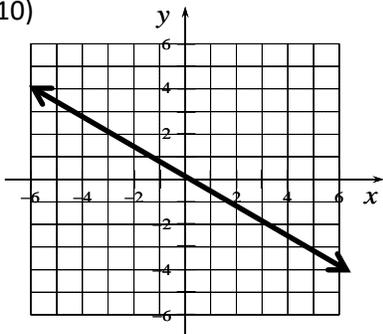
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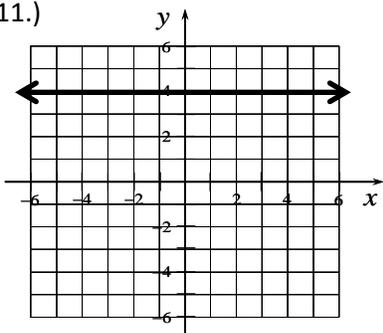
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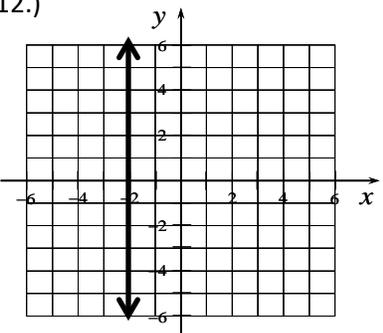
10)



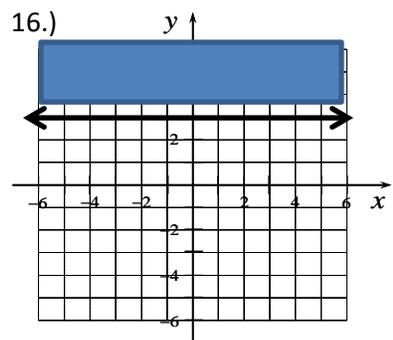
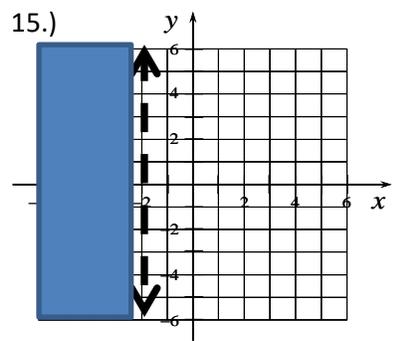
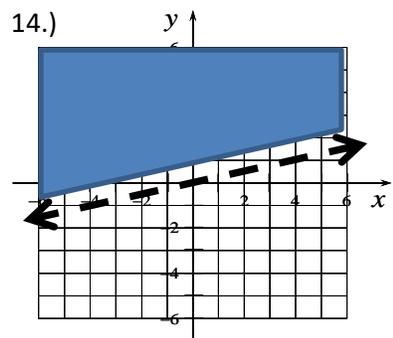
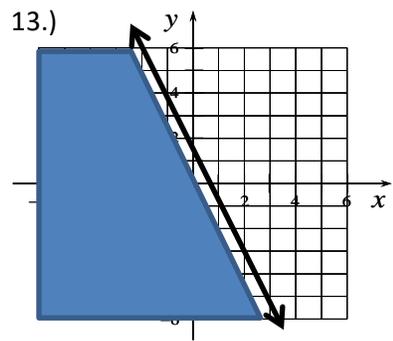
11.)



12.)



### 3.4 Graph a Linear Inequality



### 3.5 Find the Slope of a Line Given Two Points

17.)  $\frac{7}{11}$

18.)  $-\frac{4}{9}$

### 3.5 Find the Slope and y-intercept of a Line Given an Equation

19.)  $m = \frac{1}{9}; (0, 7)$

20.)  $m = \frac{3}{4}; (0, -4)$

### 3.5 Find the Slope of a Parallel Line and of a Perpendicular Line

21.) 4

22.)  $-\frac{7}{5}$

### 3.6 Find the Average Rate of Change

23.) 21 new jobs per year

24.) 76 jobs were lost per year

### 3.7 Write an Equation of a Line

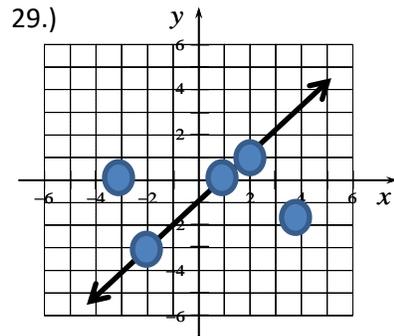
25.)  $y = \frac{3}{10}x - 2$

26.)  $y = -3x - 5$

27.)  $y = -4x - 5$

28.)  $y = \frac{1}{5}x - 1$

### 3.8 Draw a Scatter Plot and Sketch the Line That Best Fits the Data



### 3.8 Make a Prediction

30.) \$134,800

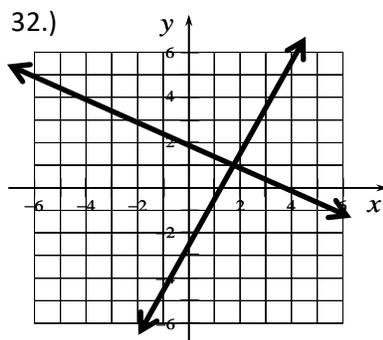
### 3.8 Write an Equation and Make a Prediction

31a.)  $n(t) = 7t + 71$

31b.) 2026

## Module 4 – Systems of Linear Equations

### 4.1 Solve Systems of Equations by Graphing



(2, 1)

### 4.2 Solve Systems of Equations by the Substitution Method

33.) (7, -2)

34.) (-3, -4)

35) No Solution

#### **4.3 Solve Systems of Equations by the Addition/Elimination Method**

36.) (1, 9)

37.) (-1, 5)

38.) Infinite Solutions

39.) (2, 5)

#### **4.4 Solving Applications Using Systems of Linear Equations**

40.) 61, 28

41.) More than 250 minutes

42.) \$2,900 at 5% and \$2,400 at 4%

43.) 179 adults and 358 children

44.) 14 pounds of cashews and 10 pounds of Brazil nuts

45.) 30 ounces of a 20% alcohol mixture and 240 ounces of a 65% alcohol mixture

46.) The plane speed is 150 mph and the wind speed is 30 mph