2nd Tri CECA Review A 1pt each /19 Name: Key

Determine whether the equation is a linear equation. If so, write the equation in standard form.

1. $y = 3x^2 - 1$

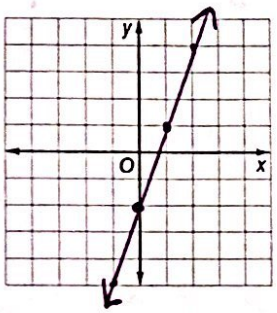
Not Linear

2. $2(1 - x) = y$

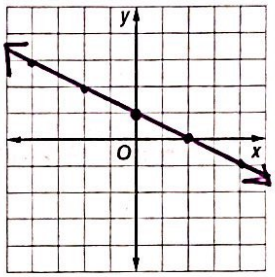
Linear, $2x + y = 2$

Graph the equation.

3. $y = 3x - 2$



4. $y = -\frac{1}{2}x + 1$



Solve the equation.

5. $4x + 6 = -18$ $x = -6$

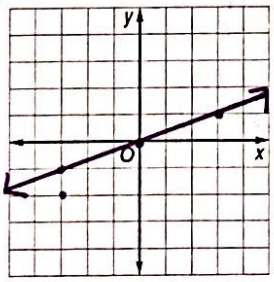
Write an equation of the line with the given slope and y-intercept.

6. Slope: 3, y-intercept: -4

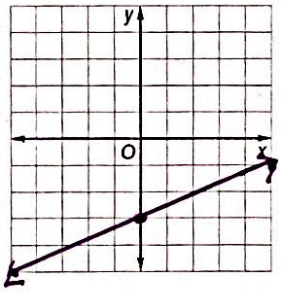
$y = 3x - 4$

Graph the line with the given slope and y-intercept.

7. Slope: $\frac{1}{3}$, y-intercept: 0



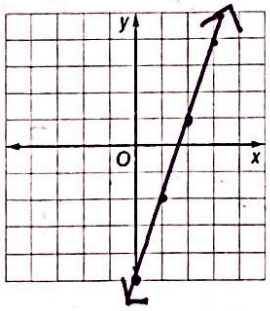
8. Slope: $\frac{2}{5}$, y-intercept: -3



Graph the equation using the slope and y-intercept.

9. $3x - y = 5$

$y = 3x - 5$



Beach Bike Rentals charges $4.00 plus $0.25 per mile to rent a bike.

10. Write an equation for the total cost C of renting a bike and riding for m miles.

$C = 0.25m + 4$

11. What is the cost of renting a bike and riding 15 miles?

$7.75

12. In 2003, school lunch at Madison High School was $1.50. In 2013, the cost increased to $2.75. Find the annual rate of change in the price for school lunch from 2003 to 2013.

$0.13 per year

Determine whether the sequence is an arithmetic sequence. If it is, state the common difference.

13. $-10, -23, -36, -49, \ldots$ Arithmetic $d = -13$

Write an equation of the line that passes through each point with the given slope.

14. $(6, -3), m = \frac{1}{2}$ $y = \frac{1}{2}x - 6$

Write an equation of the line that passes through the pair of points.

15. $(7,4), (1,6)$ $y = -\frac{1}{3}x + \frac{19}{3}$

Write the point-slope form of an equation for a line that passes through the point with the given slope.

16. $(-2, 8), m = 4$ $y - 8 = 4(x + 2)$

Write the equation in standard form.

17. $y - 3 = 5(x + 1)$ $5x - y = -8$

Write the equation in slope-intercept form.

18. $y + 6 = -\frac{1}{3}(x - 9)$ $y = -\frac{1}{3}x - 3$

Write the slope-intercept form of an equation of the line that passes through the given point and is parallel to the graph of the equation.

19. $(1,2), y = \frac{3}{4}x - 8$ $y = \frac{3}{4}x + \frac{5}{4}$