Chapter 1 Name_____
Pre-Calculus Practice Test Per_____ Date_____

1. Write an equation in slope-intercept form for a line that passes through the point A(5, 2) and has a slope of $\frac{-3}{2}$.

2. Write the point-slope form of the equation of the line that passes through A (5, -3) and is parallel to the line 2x – 3y + 12 = 0.

3. Write the standard form of the equation that passes through B(4, -3) and is perpendicular to the graph of 3x + 6 = 0.

4. A pizza place is tracking its coupon use for 6 weeks.
   a) Use the points (2, 26) and (5, 62) to write a linear equation to predict their total coupon use.
   b) How many coupons would be used by the 10^{th} week?

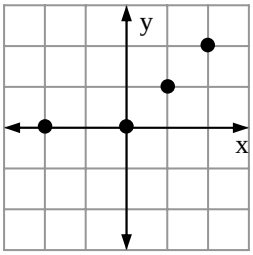
Week	1	2	3	4	5	6
Number Total Number of Coupons used to date	12	26	34	49	62	75

5. If $f(x) = \sqrt{x-1}$ and g(x) = 3x + 4, find f(g(3)).

6. State the domain and range of the relation {(-3, 4), (-2, 5), (-5, 4), (-3, 5)}. Then state whether the relation is a function and state the reasons.

7. If $f(x) = 3x^2 + 7$ find f(n – 2)

8. State the relation shown in the graph as a set of ordered pairs. Then state whether the relation is a function and state the reason.



For problems 9 and 10 Given f(x) = x^2 - 4 **and** , $g(x) = x + 2$ **find each function.**

9. $\frac{f(x)}{g(x)}$

10. f(g(x))

11. Find the zero of $f(x) = \frac{-3}{4}x - 12$

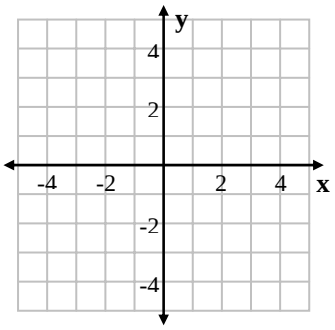
12. ***Retail:*** The cost of a gasoline in 2003 was $1.90 and $3.00 in 2005. Find the slope of the line through the points at (2003, 1.90) and (2005, 3.00). What does this slope represent?

13. Write an equation for a line that goes through the point (5, 3) and has a y-intercept of 3.

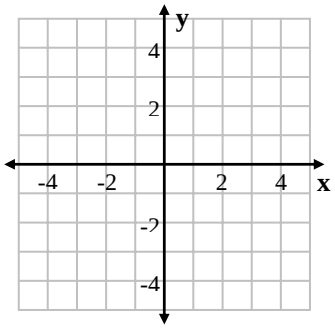
14. Determine whether the graphs of 2x – 3y – 5 = 0 and $y = \frac{2}{3}x + 4$ are parallel, coinciding, perpendicular, or none of these.

15. Graph each function or relation

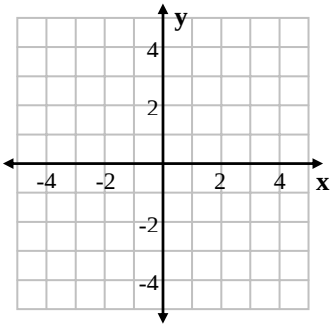
a) $y + 2 = 0$



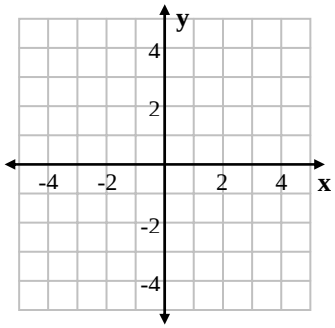
b) $y = 2x - 3$



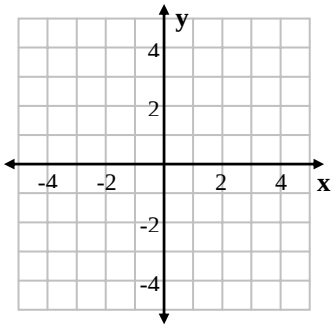
c) $2x - 3y + 9 = 0$



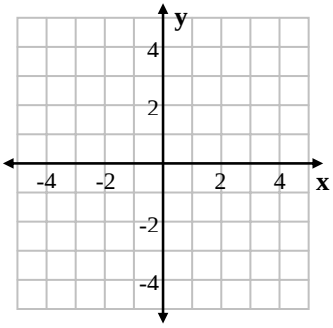
d) $f(x) = |2x+4|$



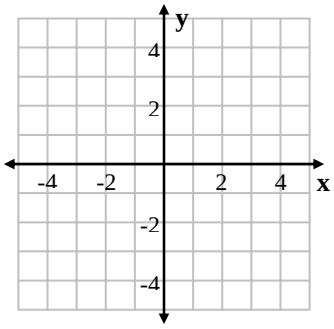
e) $f(x) = [[x + 1]]$



f) $2x - 3 > y$



g) $y \le -2|x| + 1$



h) $f(x) = \begin{cases} 4 \text{ if } x < -3 \\ x - 3 \quad \text{if } -3 \le x < 2 \\ -2x \text{ if } x \ge 2 \end{cases}$