Name: _____ Class: _____ Date: _____ ID: A

Chapter 8 Quiz #1

Tell whether x and y show *direct variation*, *inverse variation*, or *neither*.

1. $\frac{y}{8} = x$

2. $xy = 16$

3. The variables x and y vary inversely, and $y = -3$ when $x = 5$. Write an equation relating x and y. Then find y when $x = -5$.

4. The variable z varies jointly with x and y. When $x = -4$ and $y = 3$, $z = 2$. Write an equation relating x, y and z. Then find z when $x = 18$ and $y = 7$.

Graph.

5. $y = \frac{-3}{x+2} - 2$

6. $y = \frac{x+3}{3x-1}$

7. $y = \frac{5}{x^2+1}$

8. $y = \frac{x^2+x-6}{x+2}$

9. It is theorized that dividends paid on utilities stocks vary inversely with the prime interest rate. When the prime rate was 16%, dividends on a utility stock were \$3.42 per share. If the prime rate R dropped to 11%, what dividends would be paid?