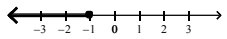
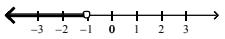
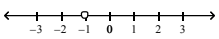
Quiz 2.4-2.8

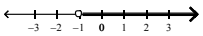
Name:_____

1. Which is the solution to the inequality $-5x+6>-2x+9$?

a. 

b. 

c. 

d. 

2. Solve

a) $5x^3-20x-3x^2=-12$

b) $-2\le\frac{-x+1}{3}<5$

c) $\frac{8}{x^2-4}=\frac{2}{x+2}$

3. Determine the value of k such that when $f(x)=x^4-kx^3+7x-6$ is divided by x-2, the remainder is -8.

4. Explain how you go about finding the original factor of a polynomial. Don't forget to talk about the rational zero test.

5. Determine when $g(x)>f(x)$ given $g(x)=x^2+7x+25$ and $f(x)=-x^2-10x-10$.

6. Solve algebraically (chart) and graphically $x^3+4x^2+x-6\ge 0$

7. Colin purchased a shipment of T-shirts for $375. He gave 7 shirts to his friends then sold the rest for $552, making a profit of $11.50 on each one. How many shirts were in the original shipment? **Set up equation only. Do not solve.**