**ALG II PAP PRE-TEST Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

State the domain and range of each relation. Then determine whether each relation is a function. Circle yes or no.

1. $\left\{\left(14,1\right),\left(-3,6\right),\left(8,4\right)\right\}$ 2. Domain Range

 -4

 -2

 0

 2

-2

 3

D:\_\_\_\_\_\_\_\_\_\_\_\_\_

R:\_\_\_\_\_\_\_\_\_\_\_\_\_

Function?: yes or no

 D:\_\_\_\_\_\_\_\_\_\_\_\_\_

R:\_\_\_\_\_\_\_\_\_\_\_\_\_

Function?: yes or no

Name the quadrant in which each point is located.

3. $\left(-6,-2\right)$ 4. $\left(4,-3\right)$ 5. $\left(-5,7\right)$

Find each product.

6. $\left(x+1\right)\left(x+4\right)$ 7. $\left(a-3\right)\left(a+6\right)$

8. $\left(m-2\right)\left(m-5\right)$ 9. $\left(c+8\right)\left(c-8\right)$

10. There are two integers. One is 5 more than a number, and the other is 1 less than the same number.

(a.) Write an expression for the two numbers.

(b.) Write a polynomial expression for the product of the numbers.

Factor each polynomial.

11. $10ab^{2}+5b$ 12. $15d-12cd^{2}$

13. $y^{2}+6y-7$ 14. $a^{2}-13a+36$