****

**8-49.** Factor each polynomial.

* 1. *x*2 – 64 b. *y*2 − 6*y* + 9

 c. 4*x*2 + 4*x* + 1 d. 5*x*2 − 45

**8-50.** The negative exponent rule is shown by the pattern, a-m = 1/am . This means that you turn the base upside down make the exponent positive:

Example: $\left(\frac{4}{5}\right)^{-2}= \left(\frac{5}{4}\right)^{2}= \left(\frac{5}{4}\right)\left(\frac{5}{4}\right)= \left(\frac{25}{16}\right)$.

a.  b. 100−1 c. 

d.  e.  f. 6−3

g.  h. 2−5 i. 3-2

**8-51.** Solve each of the following systems of equations algebraically. Then confirm your solutions by graphing.

* 1. *y* = 4*x* + 5 b. 2*x* + *y* = 9
	*y* = −2*x* – 13 *y*= −*x* + 4

**8-53.** Solve the following equations for *x*.

* 1. 4*x* − 6*y =*20 b. **** *(x*− 6) = 9