Multiplication and Division Equations

1. **a.** Which of the numbers 10, −10, or 250, or −250 is a root of the equation 5x = -50?

   b. Which of the numbers 5, −5, −20, or 20 is a root of the equation $\frac{x}{10} = -2$?

2. Simplify.

   a. $\frac{3x}{3}$ **b.** $\frac{4a}{a}$ **c.** $\frac{-2y}{2}$ **d.** $\frac{-5c}{-5}$ **e.** $\frac{2c}{-2}$ **f.** $\frac{7w}{-w}$

3. Should you multiply both sides by a number or divide both sides by a number so you can isolate x? Solve the equations.

a. 2x = 62 *divide* both sides *by 2*	**b.** $\frac{x}{3} = -30$ _____ both sides by __
c. x ÷ (−12) = 9 _____ both sides by __	**d.** −7x = −28 _____ both sides by __

4. Solve. Isolate x on the left side.

   a. 6x = −42

   b. −5x = −500

   c. $\frac{x}{6} = -3$

   d. −10x = 230

   e. −2x = −56

   f. $\frac{x}{20} = 4$

   g. $\frac{x}{-7} = -3$

   h. 6x = 240

   i. 8x = −112

   j. $\frac{x}{-10} = 40$