**You must SHOW ALL WORK to receive full credit.**

**What slope would a line parallel to the given line have? What slope would a perpendicular line have?**

1. $y=-6x-4$

 Parallel slope\_\_\_\_\_\_\_\_\_ Perpendicular slope \_\_\_\_\_\_\_\_\_

**Write the equation of the line *parallel or perpendicular* to the given line through the given point.**

2. **parallel** to $y=-\frac{1}{4}x$ through (-8,5)

**Solve the equation.**

3.$ 4x+5\left(3-2x\right)=8x-3-\left(x+8\right)$

**4. Simplify the following exponent problems.**

a. $x^{-8}∙x^{6}=$ b. $\frac{x^{6}}{x^{-2}}=$ c. $\left(x^{7}\right)^{-4}=$

**Use Pythagorean Theorem to solve for the missing side. Round your answers to the nearest tenth if necessary:**

5.

6 cm

5 cm

x