Name: _____ **Hour:** _____ **Date:** _____ **ID: Practice**

Chapter 2 Quiz #2 Practice Quiz

1. Write an equation of a line that has slope –5 and *y*-intercept 2.

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2. Write the equation of the line, in slope-intercept form, that passes through the point $\left(3,\ 5\right)$ and has slope –2.

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3. Write an equation in slope-intercept form for a line that passes through the point $\left(1,-5\right)$ and is parallel to the line $y = -4x - 5$.

4. Find the slope-intercept equation of the line passing through the points (–5, –3) and (–2, 6).

   .

5. The amount a spring will stretch, *S*, varies directly with the force (or weight), *F*, attached to the spring. If a spring stretches 7 inches with 50 pounds attached, how far will it stretch with 40 pounds attached?

6. The variables *x* and *y* vary directly and $y = -6$ when $x = \frac{1}{4}$. Write an equation that relates the variables.

7. The number of gears, *G*, a machine can make varies directly as the time, *T*, it operates. If it can make 3528 gears in 7 hours, how many gears can it make in 9 hours?

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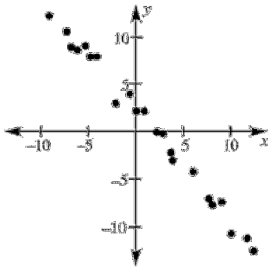
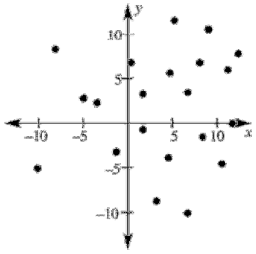
8. For the scatter plot shown, state whether *x* and *y* have a *positive correlation*, a *negative correlation*, or *no correlation*.



9. For the scatter plot shown, state whether *x* and *y* have a *positive correlation*, a *negative correlation*, or *no correlation*.



10. **Household Size** The table shows the average household size *y* in the United States from 1930 to 2000. Let *x* represent the number of years since 1930.

Year, *x*	0	10	20	30	40	50	60	70
Household size, *y*	4.11	3.67	3.37	3.35	3.14	2.76	2.63	2.62

a. Using a graphing calculator, find the equation for the best-fitting line for the data.

b. Use the equation to predict the average household size in 2030.

11. Write an equation in slope-intercept form for a line that passes through the point (1 , -5) and is perpendicular to the line y = -4x - 5.