

# Valentine Slope Intercept Activity

Materials: Coloring utensils with red, blue, and green; ruler; pencil; graph paper with hearts

Directions: Read each problem below and graph each line. Put the problem number next to the line. Your goal is to correctly graph each line, as well as correctly color each heart.

1. Graph the line  $y = 3x$ . Color the heart it goes through red.
2. Graph the line  $y = x + 1$ . Color the heart it goes through blue.
3. Graph the line  $y = -2x - 5$ . Color the heart it goes through green.
4. Graph the line  $y = -\frac{1}{3}x - 2$ . Color the heart it goes through red.
5. Put a point at  $(-5, 1)$  and color the heart blue. Make a line with a positive slope going through this point.
6. Put a point at  $(3, 0)$  and color the heart green. Make a line with a negative slope going through this point.
7. Put a point at  $(5, -6)$  and color the heart blue. Make a line with zero slope going through this point.
8. Color the extra heart something different than red, blue, or green.
9. Write the equation for #5 in a) Point-Slope Form, b) Slope-Intercept Form, and c) Standard Form.
10. Write the equation for #6 in a) Point-Slope Form, b) Slope-Intercept Form, and c) Standard Form.
11. Write the equation for #7 in Point-Slope Form. Simplify. Explain why there is only one way to write this equation.

