Activity 0930

Date_____ Period____

Write the slope-intercept form of the equation of the line through the given point with the given slope.

1) through: $(5, 2)$, slope $= \frac{2}{5}$

Write the slope-intercept form of the equation of the line through the given points.

2) through: $(-5, -4)$ and $(-3, -2)$

Write the slope-intercept form of the equation of the line described.

3) through: $(5, 5)$, parallel to $y = \frac{8}{5}x + 4$

4) through: $(4, -5)$, perp. to $y = \frac{2}{5}x + 1$

Use the information provided to write the standard form equation of each circle.

5) Center: $(9, -13)$
Radius: 4

6) Center: $(-15, 13)$
Point on Circle: $(-15, 10)$

7) Center: $(-5, -4)$
Circumference: 20π

8) Center: $(-7, -13)$
Tangent to $y = -8$

Use the information provided to write the standard form equation of each parabola.

9) Opens up or down, Vertex: $(6, 4)$, Passes through: $(9, -140)$

Identify the vertex and axis of symmetry of each.

10) $y = x^2 - 6x + 16$

Algebra 2 Name_____ ID: 1

Activity 0930

Date_____ Period____

Write the slope-intercept form of the equation of the line through the given point with the given slope.

1) through: $(5, 2)$, slope $= \frac{2}{5}$ $y = \frac{2}{5}x$

Write the slope-intercept form of the equation of the line through the given points.

2) through: $(-5, -4)$ and $(-3, -2)$

$y = x + 1$

Write the slope-intercept form of the equation of the line described.

3) through: $(5, 5)$, parallel to $y = \frac{8}{5}x + 4$ $y = \frac{8}{5}x - 3$

4) through: $(4, -5)$, perp. to $y = \frac{2}{5}x + 1$ $y = -\frac{5}{2}x + 5$

Use the information provided to write the standard form equation of each circle.

5) Center: $(9, -13)$
Radius: 4

$(x - 9)^2 + (y + 13)^2 = 16$

6) Center: $(-15, 13)$
Point on Circle: $(-15, 10)$

$(x + 15)^2 + (y - 13)^2 = 9$

7) Center: $(-5, -4)$
Circumference: 20π

$(x + 5)^2 + (y + 4)^2 = 100$

8) Center: $(-7, -13)$
Tangent to $y = -8$

$(x + 7)^2 + (y + 13)^2 = 25$

Use the information provided to write the standard form equation of each parabola.

9) Opens up or down, Vertex: $(6, 4)$, Passes through: $(9, -140)$

$y = -16x^2 + 192x - 572$

Identify the vertex and axis of symmetry of each.

10) $y = x^2 - 6x + 16$

Vertex: $(3, 7)$
Axis of Sym.: $x = 3$