

Name:

Do Now: Point-slope and linear equations

1. Write down the slope perpendicular to the given slope.

(a) $m = \frac{1}{2}$ $m_{\perp} =$

(c) $m = 2$ $m_{\perp} =$

(b) $m = -3$ $m_{\perp} =$

(d) $m = -\frac{3}{2}$ $m_{\perp} =$

2. Write down the center and radius of each circle.

(a) $(x - 4)^2 + (y - 2)^2 = 25$

(b) $(x + 1)^2 + (y - 5)^2 = 16^2$

In the following problems, use the point-slope formula: $y - y_1 = m(x - x_1)$

3. What is the equation of a line through $(1, 2)$ with slope $m = 2$?
4. What is the equation of a line through $(-5, 3)$ parallel to the line $y = \frac{1}{2}x - 2$?
5. What is an equation of a line which passes through $(6, 9)$ and is perpendicular to the line whose equation is $4x - 6y = 15$?