Finding Equations of Parallel and Perpendicular Lines

1. Write the slope-intercept form of the lines as described below.

ⓐ Passes through $(1,-2)$; perpendicular to $2y - x = 2$

ⓑ Passes through $(5,-2)$; parallel to $y = \frac{5x}{7} + 3$

ⓒ Passes through $(-9,2)$; parallel to $10x - 6y = 20$

2. Write the standard form of the lines as described below.

ⓐ Passes through $(-3,1)$; perpendicular to $y = \frac{-5x}{4} - 9$

ⓑ Passes through $(-7,3)$; parallel to $y = \frac{10x}{12} - 1$

ⓒ Passes through $(-10,0)$; perpendicular to $-y + 3x = 16$

Finding Equations of Parallel and Perpendicular Lines

1. Write the slope-intercept form of the lines as described below.

   (a) Passes through (1,−2); perpendicular to $2y - x = 2$

   $y = -2x$

   (b) Passes through (5,−2); parallel to $y = \frac{5x}{7} + 3$

   $y = \frac{5x}{7} - \frac{39}{7}$

   (c) Passes through (−9,2); parallel to $10x - 6y = 20$

   $y = \frac{5x}{3} + 17$

2. Write the standard form of the lines as described below.

   (a) Passes through (−3,1); perpendicular to $y = \frac{-5x}{4} - 9$

   $4x - 5y = -17$

   (b) Passes through (−7,3); parallel to $y = \frac{10x}{12} - 1$

   $5x - 6y = -53$

   (c) Passes through (−10,0); perpendicular to $-y + 3x = 16$

   $3y = -x - 10$