Linear Equations Fluency Check

Name Answer Key :Version A

Write the answers to the following questions in slope intercept form. Show your work. Box your answers.

1. Containing points (3,6),(7,−2)

$y = -2x + 12$

2. Slope = $-\frac{3}{4}$, y-intercept = 8

$y = -\frac{3}{4}x + 8$

3. Slope = 2 through point (-3,10)

$y = 2x + 16$

4. Parallel to y=6, through (2, -3)

$y = -3$

5. Perpendicular to 2x+3y=7, through (-4, 6)

Given Slope = -2/3

Perpendicular Slope = 3/2

$y = \frac{3}{2}x + 12$

Linear Equations Fluency Check

Name Worked Answer Key :Version A

Write the answers to the following questions in slope intercept form. Show your work. Box your answers..

1. Containing points (3,6),(7,−2)

$\text{Slope} = \frac{6-(-2)}{3-7} = \frac{6+2}{-4} = \frac{8}{-4} = \boxed{-2}$

$y - 6 = -2(x - 3) \Rightarrow y - 6 = -2x + 6 \Rightarrow \boxed{y = -2x + 12}$

2. Slope = $-\frac{3}{4}$, y-intercept = 8

$\boxed{y = -\frac{3}{4}x + 8}$

3. Slope = 2 through point (-3,10)

$y - 10 = 2(x - (-3)) \Rightarrow y - 10 = 2x + 6 \Rightarrow \boxed{y = 2x + 16}$

4. Parallel to y=6, through (2, -3)

$\boxed{y = -3}$

5. Perpendicular to 2x+3y=7, through (-4, 6)

Find Slope by rearranging given equation: $3y = -2x + 7 \Rightarrow y = \boxed{-\frac{2}{3}}x + \frac{7}{3}$

Find perpendicular slope = $\frac{3}{2}$

$y - 6 = \frac{3}{2}(x - (-4)) \Rightarrow y - 6 = \frac{3}{2}x + 6 \Rightarrow \boxed{y = \frac{3}{2}x + 12}$