

Unit 1 – Linear Functions and Equations

Writing Linear Function Equations

Step 1 – Find the Slope

A) Point and Slope: The line through $(2, 3)$ with a slope of $\frac{7}{2}$	B) Two Points The line through the points $(-4, -2)$ and $(-2, 5)$
C) Point and Parallel Line: The line through $(-3, -2)$ that is parallel to the line $y = -x + 8$	D) Point and Perpendicular Line The line through $(5, -4)$ that is perpendicular to the line $y = -5x + 3$

Step 2 – Put in point-slope form

A)	B)
C)	D)

Step 3 (optional, if requested) – Change to slope-intercept form

A)	B)
C)	D)

Unit 1 Linear Function Graphs Practice:

1. What is the equation of the line that passes through (5, 8) and has a slope of $\frac{2}{5}$?

2. What is the equation of the line that passes through the points (-2, 6) and (-8, 10)?

3. What is the equation of the line that passes through the points (-6, 8) and (4, 3)?

4. What is the equation of the line passing through (2, -9) and is parallel to

$$y = -\frac{1}{3}x - 10$$

5. What is the equation of the line through the point (2, -8) with a slope of 5

6. What is the equation of the line passing through (-8, 4) and is perpendicular to

$$y = \frac{1}{4}x + 3$$

7. What is the equation of the line through the points (4, 1) and (-4, -5)

8. What is the equation of the line through the point (6, 7) that is perpendicular to

$$y = -\frac{1}{2}x - 15$$