

Algebra I Worksheet #1 Unit 7 Selected Solutions

Write the equation of each line described. If the line is oblique, then write the slope-intercept equation.

1. The line with slope 2 and y-intercept 3.

Oblique line ; $m = 2$; $b = 3$; $y = mx + b$

$$\underline{y = 2x + 3}$$

3. The horizontal line through the point (2, 3).

horizontal line ; $y = k$; $y = 3$ at the given point.

$$\underline{y = 3}$$

5. The vertical line through the point (2, 3).

vertical line ; $x = k$; $x = 2$ at the given point.

$$\underline{x = 2}$$

7. The line with slope -2 through the point (0, -5).

Oblique line ; $m = -2$; $b = -5$; $y = mx + b$

$$\underline{y = -2x - 5}$$

9. The line with *no slope* through the point (3, 1).

vertical line ; $x = k$; $x = 3$ at the given point.

$$\underline{x = 3}$$

11. The line with slope 0 through the point (3, 1).

horizontal line ; $y = k$; $y = 1$ at the given point.

$$\underline{y = 1}$$

13. The line through (-2, 1) and (0, 7).

oblique line ; $m = \frac{7-1}{0-(-2)} = 3$; $b = 7$

$$\underline{y = 3x + 7}$$

15. The line through (5, 4) and (-1, 4).

horizontal line ; $y = k$; $y = 4$ at the given points.

$$\underline{y = 4}$$

19. The line through (5, 1) and (5, -2).

vertical line ; $x = k$; $x = 5$ at the given points.

$$\underline{x = 5}$$