

Answers to examples in the PowerPoint presentation.

1.

$$\perp m = \frac{5}{4}$$
$$6 = \frac{5}{4}(-4) + b$$
$$6 = -5 + b$$
$$+5 \quad +5$$
$$11 = b$$

$$y = \frac{5}{4}x + 11$$

2.

$$\perp m = \frac{1}{3}$$
$$4 = \frac{1}{3}(3) + b$$
$$4 = 1 + b$$
$$-1 \quad -1$$
$$3 = b$$

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

3.

$$7x - 5y = 10$$
$$-7x \quad -7x$$
$$-5y = -7x + 10$$
$$\frac{-5y}{-5} = \frac{-7x}{-5} + \frac{10}{-5}$$
$$y = \frac{7}{5}x - 2$$
$$\perp m = -\frac{5}{7}$$
$$-11 = -\frac{5}{7}(14) + b$$
$$-11 = -10 + b$$
$$+10 \quad +10$$
$$-1 = b$$

$$y = -\frac{5}{7}x - 1$$

4.

$$\perp m = \frac{5}{6}$$
$$7 = \frac{5}{6}(-6) + b$$
$$7 = -5 + b$$
$$+5 \quad +5$$
$$12 = b$$

$$y = \frac{5}{6}x + 12$$

5.

$$\perp m = \frac{3}{4}$$
$$2 = \frac{3}{4}(-8) + b$$
$$2 = -6 + b$$
$$+6 \quad +6$$
$$8 = b$$

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

6.

$$7x + 3y = -15$$
$$-7x \quad -7x$$
$$3y = -7x - 15$$
$$\frac{3y}{3} = \frac{-7x}{3} - \frac{15}{3}$$
$$y = -\frac{7}{3}x - 5$$
$$\perp m = \frac{3}{7}$$
$$7 = \frac{3}{7}(-21) + b$$
$$7 = -9 + b$$
$$+9 \quad +9$$
$$16 = b$$

$$y = \frac{3}{7}x + 16$$

7.

$$\perp m = -4$$
$$3 = -4(-1) + b$$
$$3 = 4 + b$$
$$-4 \quad -4$$
$$-1 = b$$

$$y = -4x - 1$$