

**LESSON 23 ANSWERS** .....

1.  $8 = 5(1) + b$   
 $b = 3$   
 $y = 5x + 3$

2.  $9 = -2(-3) + b$   
 $b = 3$   
 $y = -2x + 3$

3.  $-5 = \frac{1}{2}(8) + b$   
 $b = -9$   
 $y = \frac{1}{2}x - 9$

4.  $4 = -\frac{1}{3}(6) + b$   
 $b = 6$   
 $y = -\frac{1}{3}x + 6$

5.  $m = \frac{8-5}{2-1} = 3$   
 $5 = 3(1) + b$   
 $b = 2$   
 $y = 3x + 2$

6.  $m = \frac{-2 - (-2)}{9-5} = 0$   
 $-2 = 0(5) + b$   
 $b = -2$   
 $y = -2$

7.  $m = \frac{3 - (-9)}{1 - (-2)} = 4$   
 $3 = 4(1) + b; b = -1$   
 $y = 4x - 1$

8.  $m = \frac{-4 - 2}{3 - 3} = \text{undef.}$   
 $x = 3$

9.  $m = \frac{17 - (-4)}{8 - (-6)} = \frac{3}{2}$   
 $17 = \frac{3}{2}(8) + b$   
 $b = 5$   
 $y = \frac{3}{2}x + 5$

10.  $m = \frac{5 - 2}{-4 - 2} = -\frac{1}{2}$   
 $2 = -\frac{1}{2}(2) + b$   
 $b = 3$   
 $y = -\frac{1}{2}x + 3$

11. Given  $m = 1/5$   
 Parallel  $m = 1/5$   
 $-1 = \frac{1}{5}(5) + b$   
 $b = -2$   
 $y = \frac{1}{5}x - 2$

12. Given  $m = -3$   
 Perpendicular  $m = 1/3$   
 $0 = \frac{1}{3}(9) + b$   
 $b = -3$   
 $y = \frac{1}{3}x - 3$

13. Given  $m = 0$   
 Parallel  $m = 0$   
 $-2 = 0(-3) + b$   
 $b = -2$   
 $y = -2$

14. Given  $m = \text{undefined}$   
 Perpendicular  $m = 0$   
 $y = 7$