**Practice - Parallel and Perpendicular Lines**

**Find the slope of a line parallel to each given line.**

1) y =2x+4

2) y =4x−5

3) x− y =4

4) 7x+ y =−2

5) y =−2/3x+5

6) y =-10/3x−5

7) 6x−5y =20

8) 3x+4y =−8

**Find the slope of a line perpendicular to each given line.**

9) x=3

10) y =−1/3x

11) x−3y =−6

12) x+2y =8

13) y =−1/2x−1

14) y = 4/5x

15) 3x− y =−3

16) 8x−3y =−9

**Write the point-slope form of the equation of the line described.**

17) through: (2, 5), parallel to x=0

18) through: (5, 2), parallel to y = 7/5x + 4

19) through: (3, 4), parallel to y = 9/2x − 5

20) through: (1,−1), parallel to y =−3/4x + 3

21) through: (−1, 3), parallel to y =−3x−1

22) through: (4, 2), parallel to x=0

23) through: (1, −5), perpendicular to−x+ y =1

25) through: (1,−2), perpendicular to−x+2y =2

26) through: (5, 2), perpendicular to 5x+ y =−3

**Write the slope-intercept form of the equation of the line described.**

33) through: (4,−3), parallel to y =−2x

34) through: (−5, 2), parallel to y = 3/5x

35) through: (−3, 1), parallel to y =−4/3x − 1

36) through: (−4, 0), parallel to y =−5/4x + 4

37) through: (−4,−1), parallel to y =−1/2x + 1

38) through: (2, 3), parallel to y =5/2x − 1

39) through: (−2,−1), parallel to y =−1/2x − 2

40) through: (−5,−4), parallel to y = 3/5x − 2

41) through: (4, 3), perpendicular to x+ y =−1

42) through: (−3,−5), perpendicular to x+2y =−4

43) through: (5, 2), perpendicular to x=0

44) through: (5,−1), perpendicular to −5x+2y =10