

## Intermediate Algebra Skill

### Identifying Parallel and Perpendicular Lines

Use the Slopes to determine whether or not the given lines are parallel, perpendicular or neither:

1)  $y = 6x - 8$  and  $12x = 2y + 5$

2)  $x = -4y + 19$  and  $20y = -5x - 12$

3)  $x - y = 5$  and  $y - x = 1$

4)  $x - 3y = 2$  and  $3y - x = 1$

5)  $3x + 6y = 10$  and  $6x - 3y = 8$

6)  $-4x + 4y = 9$  and  $-14x - 8y = -3$

7)  $2 - 5y = x$  and  $2y - 5 = x$

8)  $-4 + 6y = 9x$  and  $4y - 6x = 9$

9)  $x + 6 = y$  and  $y - x = -2$

10)  $y + 3 = 5x$  and  $3x - y = -2$

11)  $y = 3x + 9$  and  $2y = 6x - 2$

12)  $y = 4x - 5$  and  $4y = 8 - x$

## **Answers to Identifying Parallel and Perpendicular Lines**

- 1) parallel
- 2) parallel
- 3) parallel
- 4) parallel
- 5) perpendicular
- 6) perpendicular
- 7) neither
- 8) neither
- 9) parallel
- 10) neither
- 11) parallel
- 12) perpendicular