Name _____ Date _____

Mr. Schlansky Geometry

Parallel and Perpendicular Slopes

1. The lines $3y+1=6x+4$ and $2y+1=x-9$ are

1) parallel
2) perpendicular
3) the same line
4) neither parallel nor perpendicular

2. What is the slope of a line perpendicular to the line whose equation is $5x+3y=8$?

1) $\frac{5}{3}$
2) $\frac{3}{5}$
3) $-\frac{3}{5}$
4) $-\frac{5}{3}$

3. Which equation represents a line perpendicular to the line whose equation is $2x+3y=12$?

1) $6y=-4x+12$
2) $2y=3x+6$
3) $2y=-3x+6$
4) $3y=-2x+12$

4. What is the equation of a line that is parallel to the line whose equation is $y=x+2$?

1) $x+y=5$
2) $2x+y=-2$
3) $y-x=-1$
4) $y-2x=3$

5. What is the slope of a line perpendicular to the line whose equation is $y=-\frac{2}{3}x-5$?

1) $-\frac{3}{2}$
2) $-\frac{2}{3}$
3) $\frac{2}{3}$
4) $\frac{3}{2}$

6. Which equation represents a line parallel to the line whose equation is $2y-5x=10$?

1) $5y-2x=25$
2) $5y+2x=10$
3) $4y-10x=12$
4) $2y+10x=8$

7. What is the slope of a line that is perpendicular to the line whose equation is $3x+4y=12$?

1) $\frac{3}{4}$
2) $-\frac{3}{4}$
3) $\frac{4}{3}$
4) $-\frac{4}{3}$

8. What is the slope of a line perpendicular to the line whose equation is $y = 3x + 4$?

1) $\frac{1}{3}$
2) $-\frac{1}{3}$
3) 3
4) -3

9. Two lines are represented by the equations $-\frac{1}{2}y = 6x + 10$ and $y = mx$. For which value of *m* will the lines be parallel?

1) -12
2) -3
3) 3
4) 12

10. The lines represented by the equations $y + \frac{1}{2}x = 4$ and $3x + 6y = 12$ are

1) the same line
2) parallel
3) perpendicular
4) neither parallel nor perpendicular

11. What is the slope of a line perpendicular to the line whose equation is $2y = -6x + 8$?

1) -3
2) $\frac{1}{6}$
3) $\frac{1}{3}$
4) -6

12. Find the slope of a line perpendicular to the line whose equation is $2y - 6x = 4$.