

MTH1W Analytic Geometry

Name: \_\_\_\_\_

HW7.3 Unique Slopes and Lines

Due Date: \_\_\_\_\_ 5T\_\_

1. Identify whether each pair of lines is parallel, perpendicular, or neither by finding and comparing the slopes.

a)  $x - y + 1 = 0$   
 $8x + 4y + 1 = 0$

b)  $3x - 2y + 12 = 0$   
 $-2x - 3y - 12 = 0$

c)  $2x + 5y - 13 = 0$   
 $2x - 5y + 23 = 0$

d)  $2x + y + 3 = 0$   
 $6x + 3y - 15 = 0$

2. Given the points  $A(-8, -2)$ ,  $B(-2, 2)$ ,  $C(6, 4)$ , and  $D(8, 1)$ , determine whether  $m_{AB}$  and  $m_{CD}$  are parallel, perpendicular, or neither.

3. Write the equations of the following lines:

