

Determine whether  $\overline{AB}$  and  $\overline{CD}$  are parallel, perpendicular, or neither

5. A(1, 5), B(4, 4), C(9, -10), D(-6, -5)

$$\text{AB} \quad \frac{5-4}{1-4} = -\frac{1}{3}$$

**Parallel**

6. A(-6,

$$\text{CD} \quad \frac{-10--5}{9--6} = -\frac{1}{3}$$

10. A(4, -2), B(-2, -8), C(4, 6), D(8, 5)

$$\text{AB} \quad \frac{-2--8}{4--2} = 1$$

$$\text{CD} \quad \frac{6-5}{4-8} = -\frac{1}{2}$$

**Neither**

23.  $3x + 5y = 10$   
 $5x - 3y = -6$

24.  $-3x +$   
 $-4x +$

$$\begin{array}{r} 3x + 5y = 10 \\ -3x \quad -3x \end{array}$$

$$5y = -3x + 10$$

$$y = -\frac{3}{5}x + 2$$

$$\begin{array}{r} 5x - 3y = -6 \\ -5x \quad -5x \end{array}$$

$$-3y = -5x - 6$$

$$y = \frac{5}{3}x + 2$$

**Perpendicular**