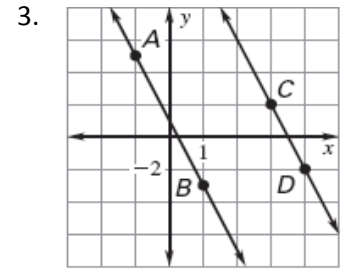
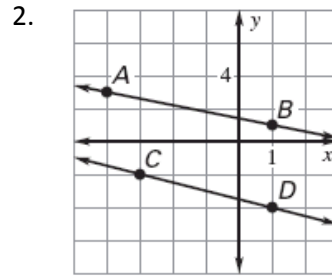
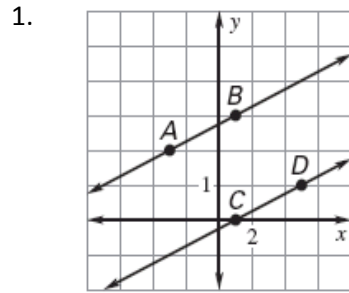
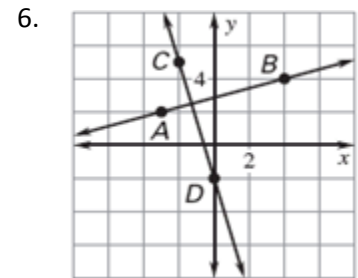
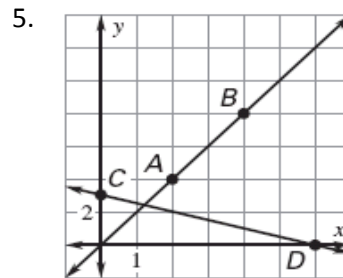
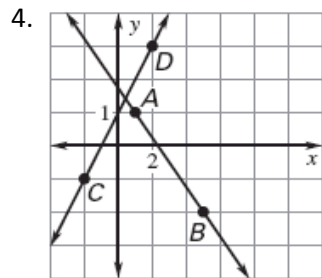


Find the slope of each line. Are the lines parallel?



Find the slope of each line. Are the lines perpendicular?



Tell whether the lines through the give points are *parallel*, *perpendicular*, or *neither*.

7. Line 1: $(-5, 6), (-2, 2)$
Line 2: $(4, 2), (7, 6)$

8. Line 1: $(1, 1), (7, 2)$
Line 2: $(-2, 5), (4, 6)$

9. Line 1: $(-4, 8), (6, 2)$
Line 2: $(-4, 1), (-1, 6)$

10. Line 1: $(-7, -4), (5, 7)$
Line 2: $(2, 3), (14, 14)$

11. Line 1: $(-5, -3), (6, 3)$
Line 2: $(1, 9), (7, -2)$

12. Line 1: $(-3, 2), (2, 12)$
Line 2: $(0, 8), (4, 16)$

Tell which line through the given points is steeper.

13. Line 1: (2, 14), (11, 23)
Line 2: (4, 2), (13, 12)

14. Line 1: (-10, -3), (2, 12)
Line 2: (1, -5), (7, 0)

15. Line 1: (-12, 11), (3, -5)
Line 2: (-2, 9), (4, 13)

16. Line 1: (-4, 5), (-4, 0)
Line 2: (6, 0), (0, 0)

17. Line 1: (2, 5), (7, 8)
Line 2: (-6, 4), (4, -4)

18. Line 1: (-8, -5), (-4, -2)
Line 2: (-9, -1), (-5, -7)

Answer Key:

1. $m_{\overline{AB}} = \frac{1}{4}$, $m_{\overline{CD}} = \frac{1}{4}$; yes

2. $m_{\overline{AB}} = -\frac{2}{5}$, $m_{\overline{CD}} = -\frac{1}{2}$; no

3. $m_{\overline{AB}} = -4$, $m_{\overline{CD}} = -4$; yes

4. $m_{\overline{AB}} = -\frac{3}{4}$, $m_{\overline{CD}} = 1$; no

5. $m_{\overline{AB}} = 2$, $m_{\overline{CD}} = -\frac{1}{2}$; yes

6. $m_{\overline{AB}} = \frac{2}{7}$, $m_{\overline{CD}} = -\frac{7}{2}$; yes

7. neither

8. Parallel

9. perpendicular

10. Parallel

11. perpendicular

12. Parallel

13. Line 2

14. Line 1

15. Line 1

16. Line 1

17. Line 2

18. Line 2