

5-1

# Comparing Slopes # 4

① CJ                      Holland                      Brandon  
 $m = 1\frac{3}{2}$  or 1.5                       $m = 1.0$                        $m = 7$

Brandon is greatest; Holland is least

② Smith's                      Harrison                      Mally's  
 $m = \frac{5}{4}$  or 1.25                       $m = 1\frac{7}{2}$  or 3.5                       $m = 2$

Harrison's is greatest; Smith's is least

③ Tyler                      Aubri                      Kyote  
 $m = 1\frac{3}{2}$  or 1.5                       $m = 1\frac{3}{2}$  or 1.5                       $m = 1.25$

Aubri & Tyler tie for greatest; Kyote is least

④ Bradley                      Omar                      Malik  
 $m = 110$                        $m = 100$                        $m = 120$

Malik is greatest; Bradley is least

⑤ Jesse                      Troy                      Luey  
 $m = 29$                        $m = 28$                        $m = 25$

Jesse is greatest; Luey is least

④	<u>TANNER</u> $m = 9/2$ or $4.5$	<u>HUNTER</u> $m = 13/4$ or $3.25$	<u>CASEY</u> $m = 5$
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CASEY is greatest; Hunter is least.

⑦	<u>DENNIS</u> $m = 78$	<u>MYRIAH</u> $m = 78$	<u>KAMRON</u> $m = 75$
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Dennis & Myriah tie for greatest; Kamron is least.

⑧	<u>JACKSON</u> $m = 150$	<u>KATIE</u> $m = 140$	<u>CHRISTEN</u> $m = 100$
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Katie is greatest; Christen is least.

⑨	<u>STOKTON</u> $m = 140$	<u>MELISSA</u> $m = 14$	<u>TAYLOR</u> $m = 10$
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Taylor is greatest; Melissa is least.

# Finding Slopes #4

① (6,8) (3,4)

$$\frac{4-8}{-3-6} = \frac{-4}{-9} = \left(\frac{4}{9}\right)$$

① (-3,2) (6,6)

$$\frac{6-2}{6-(-3)} = \frac{4}{9}$$

②  $m = -1$

②  $m = -1$

③ (-9,16) (-11,16)

$$\frac{16-16}{-11-(-9)} = \frac{0}{-2} = 0$$

③ (10,4) (7,4)

$$\frac{4-4}{7-10} = \frac{0}{-3} = 0$$

④ (-3,2) (1,-4)

$$\frac{-4-2}{1-(-3)} = \frac{-6}{4} = \left(-\frac{3}{2}\right)$$

④ (-5,9) (3,-3)

$$\frac{-3-9}{3-(-5)} = \frac{-12}{8} = \left(-\frac{3}{2}\right)$$

⑤ (9,-4) (3,2)

$$\frac{2-(-4)}{3-9} = \frac{6}{-6} = -1$$

⑤ (-2,2) (4,-4)

$$\frac{-4-2}{4-(-2)} = \frac{-6}{6} = -1$$

$$\textcircled{6} m = \frac{2}{3}$$

$$\textcircled{6} m = \frac{2}{3}$$

$$\textcircled{7} (9, 0) (1, 4)$$

$$\textcircled{7} (4, 3) (8, 4)$$

$$\frac{4-0}{1-9} = \frac{-2}{-8} = \textcircled{\frac{1}{4}}$$

$$\frac{4-3}{8-4} = \textcircled{\frac{1}{4}}$$

$$\textcircled{8} (0, 1) (1, 3)$$

$$\textcircled{8} (1, 2) (2, 4)$$

$$\frac{3-1}{1-0} = \frac{2}{1} = \textcircled{2}$$

$$\frac{4-2}{2-1} = \frac{2}{1} = \textcircled{2}$$

$$\textcircled{9} (3, 1) (-3, 3)$$

$$\textcircled{9} (-3, -1) (0, 2)$$

$$\frac{3-1}{-3-3} = \frac{2}{-6} = \textcircled{-\frac{1}{3}}$$

$$\frac{-4+(-1)}{0+(-3)} = \frac{-3}{-3} = \textcircled{\frac{1}{3}}$$

$$\textcircled{10} (1, 8) (-1, 7)$$

$$\textcircled{10} (-1, -3) (1, -2)$$

$$\frac{7-8}{-1-1} = \frac{-1}{-2} = \textcircled{\frac{1}{2}}$$

$$\frac{-2+(-3)}{1+(-1)} = \textcircled{\frac{1}{2}}$$

# 5-1 Box 8 Glencoe 5-1 practice

① slope =  $\frac{-3}{1} = -3$       ②  $m = \frac{4}{5}$       ③  $m = 0$

④  $(6, 3) (7, -4)$

$$m = \frac{-4-3}{7-6}$$

$$m = -7$$

⑤  $(-9, -3) (-7, -5)$

$$m = \frac{-5+3}{-7+9} = \frac{-2}{2} = -1$$

$$-1$$

⑥  $(6, -2) (5, -4)$

$$m = \frac{-4+2}{5-6} = \frac{-2}{-1} = 2$$

$$m = 2$$

⑦  $(7, -4) (4, 8)$

$$m = \frac{8+4}{4-7} = \frac{12}{-3} = -4$$

$$m = -4$$

⑧  $(-7, 8) (-7, 5)$

$$m = \frac{8-5}{-7+7} = \frac{3}{0}$$

$$\text{Undefined}$$

⑨  $(9, 9) (3, 9)$

$$m = \frac{9-9}{9-3} = \frac{0}{6} = 0$$

$$m = 0$$

⑩  $(15, 2) (-6, 5)$

$$m = \frac{5-2}{-6-15} = \frac{3}{-21} = -\frac{1}{7}$$

$$m = -\frac{1}{7}$$

⑪  $(3, 9) (-2, 8)$

$$m = \frac{9-8}{3+2} = \frac{1}{5}$$

$$\frac{1}{5}$$

⑫  $(-2, -5) (7, 8)$

$$m = \frac{8+5}{7+2} = \frac{13}{9}$$

$$m = \frac{13}{9}$$

⑬  $(12, 10) (12, 5)$

$$m = \frac{10-5}{12-12} = \frac{5}{0} = \text{undefined}$$

$$\text{undefined}$$

⑭  $(.2, -.9) (.5, -.9)$

$$m = \frac{-.9+-.9}{.2-.5} = \frac{-1.8}{-.3} = 6$$

⑮  $(\frac{7}{3}, \frac{4}{3}) (-\frac{1}{3}, \frac{2}{3})$

$$m = \frac{\frac{4}{3} - \frac{2}{3}}{\frac{7}{3} - (-\frac{1}{3})} = \frac{\frac{2}{3}}{\frac{8}{3}} = \frac{2}{8} = \frac{1}{4}$$

$$\frac{1}{4}$$

$$m = \frac{1}{4}$$

$$\textcircled{24} \frac{8}{12} = \boxed{\frac{2}{3}}$$

$$\textcircled{25} (0, 12125) (5, 10, 100)$$

$$\frac{10100 - 12125}{5} = \boxed{\downarrow 405 \text{ year}}$$

$$\textcircled{16} (-2, r) (6, 7) \quad m = \frac{1}{2}$$

$$\frac{r-7}{-2-6} = \frac{1}{2}$$

$$2(r-7) = 1(-2-6)$$

$$2r - 14 = -8$$

$$+14 \quad +14$$

$$2r = \frac{6}{2}$$

$$\boxed{r = 3}$$

$$\textcircled{17} (-4, 3) (r, 5) \quad m = \frac{1}{4}$$

$$\frac{5-3}{r+4} = \frac{1}{4}$$

$$4(2) = r+4$$

$$8 = r+4$$

$$-4 \quad -4$$

$$4 = r$$

$$\boxed{r = 4}$$

$$\textcircled{18} (-3, -4) (-5, r) \quad m = -\frac{9}{2}$$

$$\frac{r+4}{-5+3} = \frac{-9}{2}$$

$$2(r+4) = -9(-2)$$

$$2r + 8 = 18$$

$$-8 \quad -8$$

$$2r = 10$$

$$\frac{2}{2} \quad \frac{2}{2}$$

$$\boxed{r = 5}$$

$$\textcircled{19} (-5, r) (1, 3) \quad m = \frac{7}{6}$$

$$\frac{r-3}{-5-1} = \frac{7}{6}$$

$$6(r-3) = 7(-6)$$

$$6r - 18 = -42$$

$$+18 \quad +18$$

$$6r = -24$$

$$\frac{6}{6} \quad \frac{6}{6}$$

$$\boxed{r = -4}$$

$$\textcircled{20} (1, 4) (r, 5) \text{ undefined}$$

means  $\nearrow$

X-values are =

$$\text{so } \boxed{r = 1}$$

$$\textcircled{21} (-7, 2) (-8, r) \quad m = -5$$

$$m \frac{r-2}{-8+7} = \frac{-5}{1}$$

$$r-2 = -5(-1)$$

$$r-2 = 5$$

$$+2 \quad +2$$

$$\boxed{r = 7}$$

$$\textcircled{22} (r, 7) (11, 8) \quad m = -\frac{1}{5}$$

$$\frac{7-8}{r-11} = \frac{-1}{5}$$

$$5(-1) = -1(r-11)$$

$$-5 = -r+11$$

$$-11 \quad -11$$

$$-16 = -r \quad \boxed{r = 16}$$

$$\textcircled{23} (r, 2) (5, r) \quad m = 0$$

Y-values are =  $\nearrow$

$$\boxed{r = 2}$$