

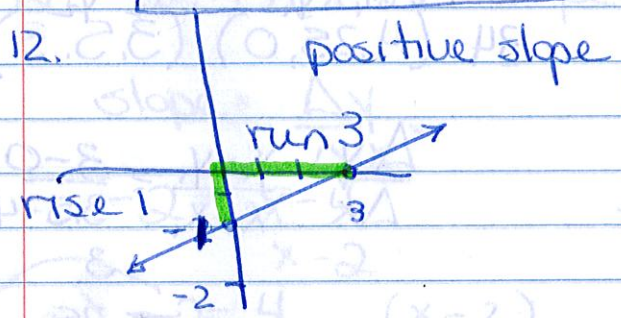
Pg 296

8, 12, 16, 18, 22, 23, 24, 26, 28, 30, 34,
36, 41, 42, 44, 46

8	time	Distance
+1	(1, 2)	6
+1	(2, 3)	12
+1	(3, 4)	15
+1	(4, 5)	21

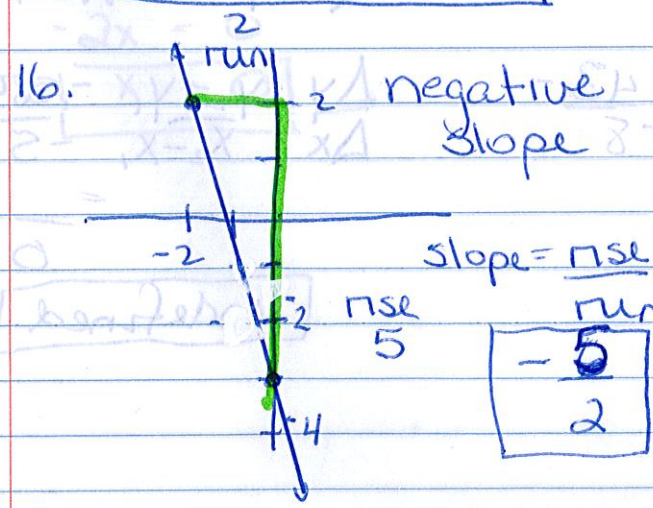
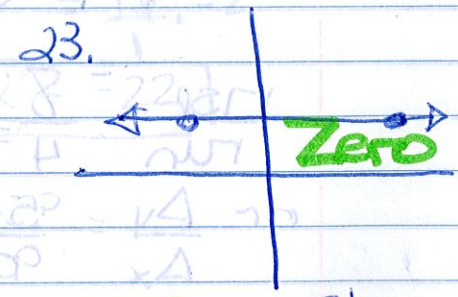
18. $(x_1, y_1) = (1, 3)$ $(x_2, y_2) = (5, 5)$
 $\text{slope} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$
 $\frac{5 - 3}{5 - 1} = \frac{2}{4} = \frac{1}{2}$

no not constant

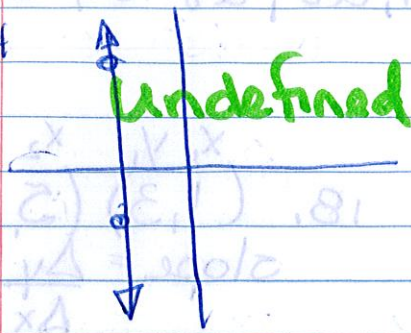


22. $(x_1, y_1) = (2, -3)$ $(x_2, y_2) = (5, -4)$
 $\text{slope} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$
 $\frac{-4 - (-3)}{5 - 2} = \frac{-4 + 3}{5 - 2} = \frac{-1}{3}$

rate of change = slope
 $\text{slope} = \frac{\text{rise}}{\text{run}} = \frac{1}{3}$



24



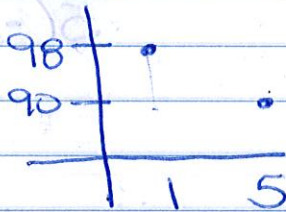
26. Zero

straight line

28. negative

less pt. with

(8 more answers)



$$\begin{aligned} \text{rise} &= 8 - 2 \\ \text{run} &= 4 \end{aligned}$$

$$\text{or } \frac{\Delta y}{\Delta x} = \frac{90 - 98}{5 - 1} = \frac{-8}{4} = -2$$

$$\boxed{-2}$$

dps

30. time indep.
depth of snow
dep

$$\begin{matrix} x_1 & y_1 & x_2 & y_2 \\ (1, .02) & & (3, .06) & \end{matrix}$$

$$\frac{\Delta y}{\Delta x} = \frac{.06 - .02}{3 - 1} = \frac{.04}{2}$$

$$\boxed{= .02 \text{ m/h}}$$

$$34 \begin{matrix} x_1 & y_1 & x_2 & y_2 \\ (4.25, 0) & & (3.5, 3) & \end{matrix}$$

$$\frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{3 - 0}{3.5 - 4.25}$$

$$\frac{3}{-.75} = \boxed{-4}$$

$$36. (-5, .124) (-5, -.584)$$

$$\frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-.584 - .124}{-5 - (-5)}$$

$$\boxed{\text{Undefined}}$$

41. (4500 January) 2
4100 (8600 March) 2

$$\frac{\Delta y}{\Delta x} = \frac{8600 - 4500}{\text{March} - \text{Jan}} = \frac{4100}{2} = 2050$$

∴ 2050 / month

$$\text{slope} = \frac{\Delta y}{\Delta x}$$

$$-\frac{1}{2} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$-\frac{1}{2} = \frac{8 - (-4)}{x - 2}$$

42. (2, 4) (x, 8) slope = -2

$$\text{slope} = \frac{\Delta y}{\Delta x} = -2 = \frac{8 - 4}{x - 2}$$

$$-2 = \frac{8 - 4}{x - 2}$$

$$(x - 2) \cdot -2 = \frac{4}{x - 2} \cdot (x - 2)$$

$$-2x + 4 = 4$$

$$-4 = -4$$

$$-2x = 0$$

$$\boxed{x = 0}$$

$$-\frac{1}{2} = \frac{8 + 4}{x - 2}$$

$$(x - 2) \cdot -\frac{1}{2} = \frac{12}{x - 2} \cdot (x - 2)$$

$$-\frac{1}{2}x + 1 = 12$$

$$-1 = 11$$

$$-\frac{2}{1} = \frac{-1}{2}x = \frac{11}{1} \cdot -2$$

$$\boxed{x = -22}$$

$$\frac{1}{5} = \dots 46 \quad (-4, y) \quad (2, 4y)$$

$$\text{slope} = 6$$

$$\text{slope} = \frac{\Delta y}{\Delta x}$$

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

$$6 = \frac{3y}{2+4}$$

$$6 \cdot 6 = \frac{3y}{6}$$

$$\frac{36}{3} = \frac{3y}{3}$$

$$\boxed{12 = y}$$