

Bring in problems of each type of slope

Pg. 298 (8-35 every 3rd problem)

8

Time (mins)	Distance (m)
1	6
2	12
3	15
4	21

* not constant

29

x	y
Uniforms	Total
5	\$66
9	\$114

positive, both x and y are increasing

$$\frac{114 - 66}{9 - 5} = \frac{48}{4} = 12$$

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$$(x_1, y_1) \quad (x_2, y_2)$$

$$(0, 2) \quad (2, -2)$$

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - 2}{2 - 0} = \frac{-4}{2} = -2$$

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x	y
Time	Distance
1h	200 km
3h	80 km

IV = Time DV = Distance

$$\frac{200 - 80}{1 - 3} = \frac{120}{-2} = -60 \text{ km/hr}$$

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$$(x_1, y_1) \quad (x_2, y_2)$$

$$(0, 0) \quad (6, 5)$$

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{5 - 0}{6 - 0} = \frac{5}{6}$$

35

$$\left(\begin{matrix} x_1 & y_1 \\ -1 & 4 \end{matrix} \right) \quad \left(\begin{matrix} x_2 & y_2 \\ 8 & \frac{4}{7} \end{matrix} \right)$$

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{\frac{4}{7} - 4}{8 - (-1)} = \frac{\frac{4}{7} - \frac{28}{7}}{9} = \frac{-\frac{24}{7}}{9} = -\frac{8}{21}$$

zero

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$$(0, 0) \quad (3, 3)$$

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{3 - 0}{3 - 0} = \frac{3}{3} = 1$$

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$$(x_1, y_1) \quad (x_2, y_2)$$

$$(0, -1) \quad (2, 3)$$

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{3 - (-1)}{2 - 0} = \frac{4}{2} = 2$$

23 zero (just by looking)

$$(x_1, y_1) \quad (x_2, y_2)$$

$$(-3, 2) \quad (3, 2)$$

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - 2}{3 - (-3)} = \frac{0}{6} = 0$$

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x	y
Day	Length
6	4
17	4

y is constant

$$y = 4 \leftarrow \rightarrow$$

zero

* no change in y