

Enrichment on Linear Relationships

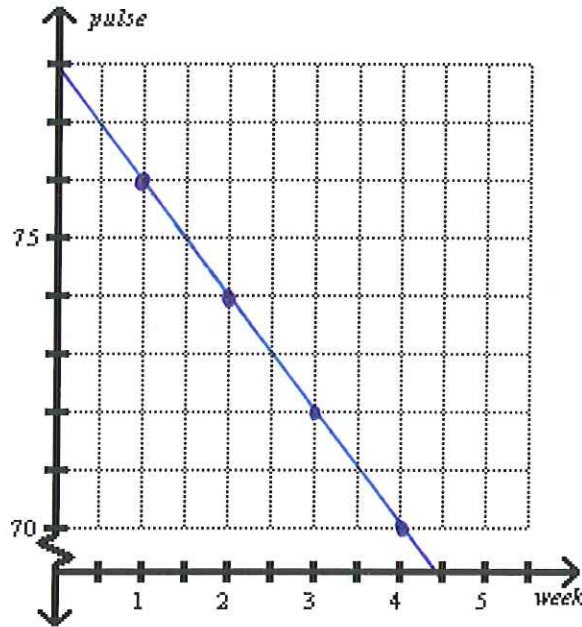
Name: \_\_\_\_\_

key

For 1–3, use the following information. The table below shows the pulse rate for a student in a fitness program over a 4 week period.

Week (x)	1	2	3	4
Pulse Rate (y)	76	74	72	70

1. Plot the points on the coordinate provided.



2. Find the slope of the line that contains the given points.

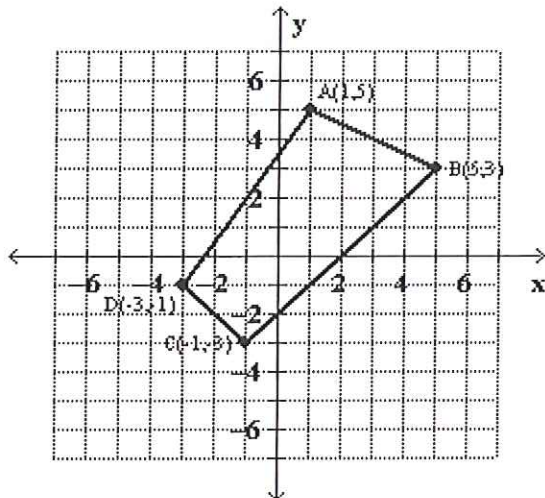
$$m = \frac{76-74}{1-2} = \frac{2}{-1} = -2$$

3. Write down the meaning of the slope in terms of this situation.

The pulse rate goes  $\downarrow 2$  every week

For 4 & 5, find the slope of each side of the given figure.

4.



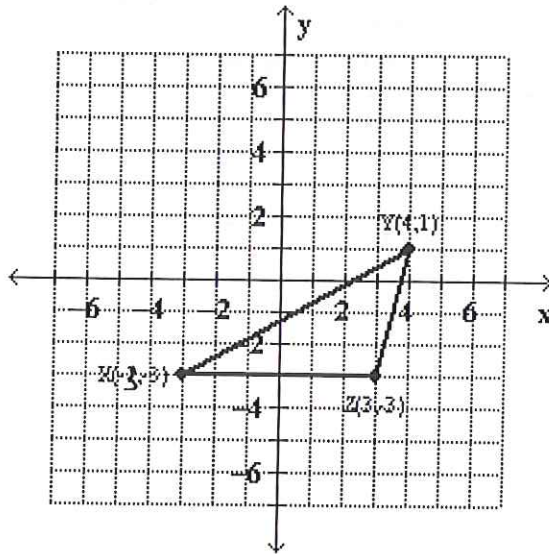
$$\text{Side AB} = \frac{5-3}{1-5} = \frac{2}{-4} = -\frac{1}{2}$$

$$\text{Side BC} = \frac{3-3}{5-1} = \frac{0}{4} = 0$$

$$\text{Side CD} = \frac{-1-3}{-3-1} = \frac{-4}{-4} = 1$$

$$\text{Side AD} = \frac{5-1}{1-3} = \frac{4}{-2} = -2$$

5.



$$\text{Side XY} = \frac{-3-1}{-3-4} = \frac{-4}{-7} = \frac{4}{7}$$

$$\text{Side YZ} = \frac{1-3}{4-3} = \frac{4}{1} = 4$$

$$\text{Side XZ} = \frac{-3-3}{-3-3} = \frac{0}{-6} = \text{zero}$$

For 6–10, draw lines on the coordinate provided using the slopes listed. Draw the line until you arrive at a point. Then begin the next line at that point.

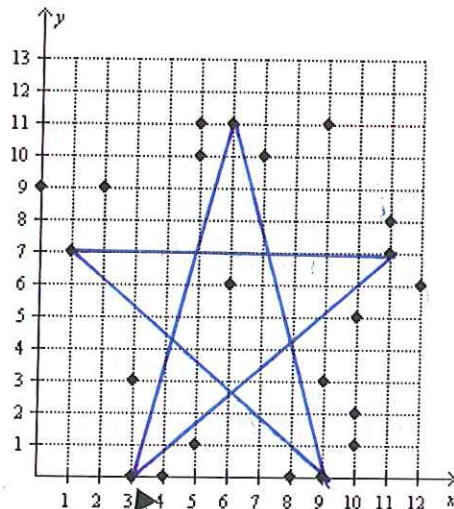
6.  $\frac{11}{3} = \frac{\uparrow 11}{\rightarrow 3}$

7.  $-\frac{11}{3} = \frac{\downarrow 11}{\rightarrow 3}$

8.  $-\frac{7}{8} = \frac{7}{-8} = \frac{\uparrow 7}{\leftarrow 8}$

9.  $0 = \frac{\uparrow 0}{\rightarrow 10}$

10.  $\frac{7}{8} = \frac{\downarrow 7}{\leftarrow 8}$



Start here