

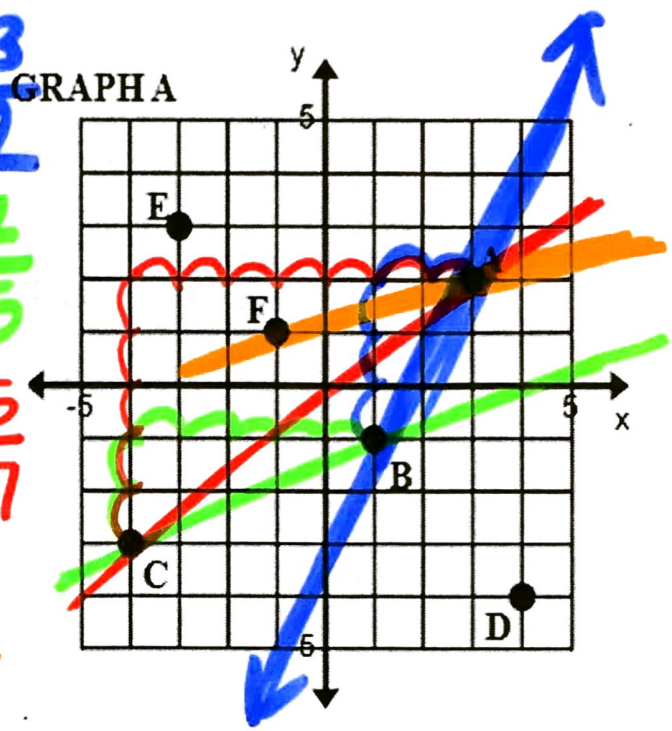
Use the points marked on Graph A to answer questions 1-4.

1. What is the slope of \overleftrightarrow{AB} ? $+\frac{3}{2}$

2. What is the slope of \overleftrightarrow{CB} ? $+\frac{2}{5}$

3. What is the slope of \overleftrightarrow{AC} ? $+\frac{5}{7}$

4. What is the slope of \overleftrightarrow{AF} ? $+\frac{1}{4}$



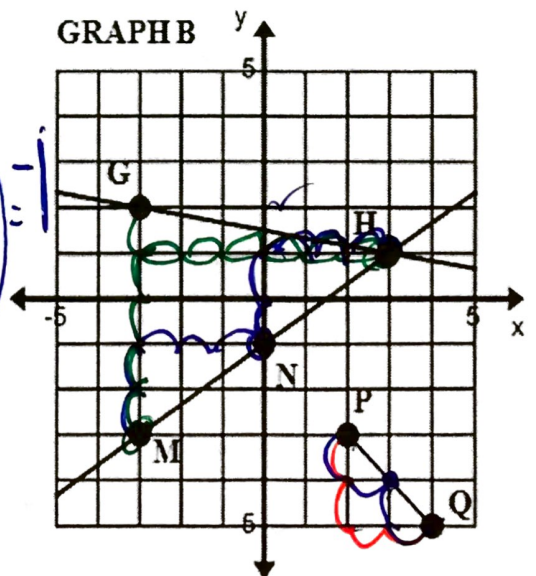
Use Graph B to answer questions 5-8.

5. What is the slope of \overleftrightarrow{GH} ? $-\frac{1}{6}$

6. What is the slope of \overleftrightarrow{PQ} ? $-\frac{2}{2} = -1$

7. What is the slope of \overleftrightarrow{HN} ? $+\frac{2}{3}$

8. What is the slope of \overleftrightarrow{HM} ? $+\frac{4}{6} = \frac{2}{3}$



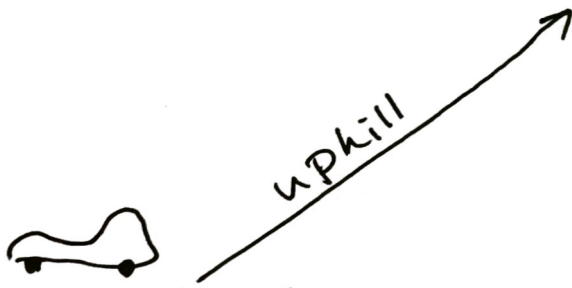
Vocabulary:

- Slope: is the steepness of a line

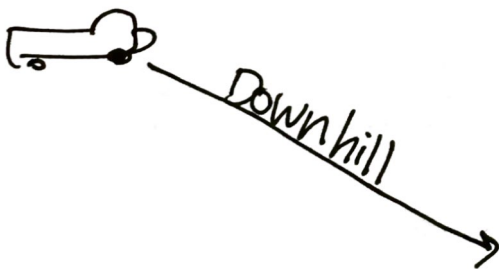


Left to Right

- Positive Slope:



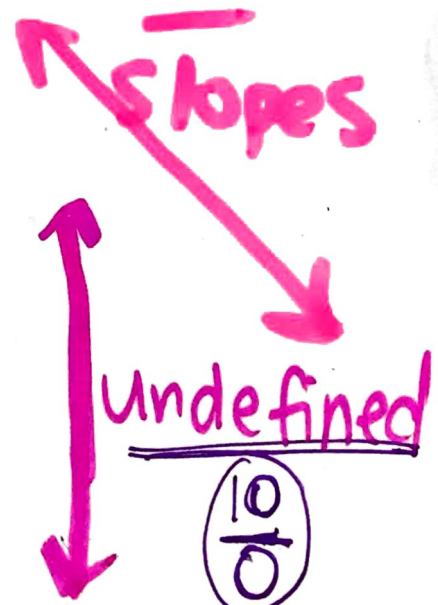
- Negative Slope:



$$\frac{y_2 - y_1}{x_2 - x_1}$$

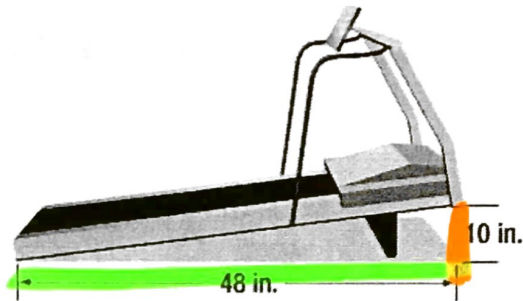
- Slope Formula:

$$\frac{\text{rise}}{\text{run}}$$

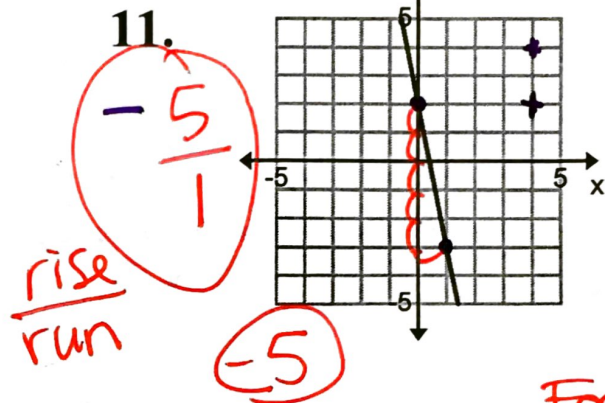
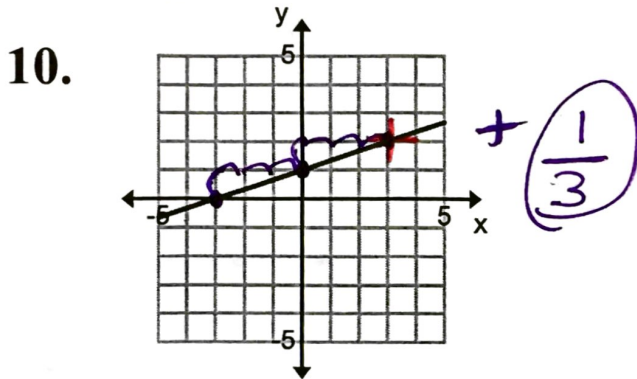


Find the slope of the treadmill.

9. $\frac{\text{rise } 10}{\text{run } 48} = \frac{10 \div 2}{48 \div 2} = \frac{5}{24}$



Pick two points on the line and find the slope.



Use the slope formula to calculate the slope without graphing. *Formula:*

12. $(0, 1)$ and $(-5, -2)$ $\frac{-2 - 1}{-5 - 0} = \frac{-3}{-5} = \frac{3}{5}$

13. $(-2, 3)$ and $(2, 5)$ $\frac{5 - 3}{2 - (-2)} = \frac{2}{4} = \frac{1}{2}$

14. $(4, 4)$ and $(2, -4)$ $\frac{-4 - 4}{2 - 4} = \frac{-8}{-2} = \frac{8}{2} = 4$

15. $(-2, 0)$ and $(1, -3)$ $\frac{-3 - 0}{1 - (-2)} = \frac{-3}{3} = -1$

Use the tables to find the slope of the line that contains the following points.

16.

	<u>x</u>		<u>y</u>
x_1	3		8 y_1
x_2	5		2 y_2
x_3	7		-4 y_3

$$\frac{2 - 8}{5 - 3} = \frac{-6}{2} = \left(\frac{-3}{1} \right)$$

$$\frac{-4 - 2}{7 - 5} = \frac{-6}{2} = \left(\frac{-3}{1} \right) \quad \frac{-4 - 8}{7 - 3} = \frac{-12}{4} = \frac{-3}{1} = \left(\frac{-3}{1} \right)$$

17.

x	-3	-2	0
y	6	-1	-15

$$\frac{-1 - 6}{-2 - (-3)} = \left(\frac{-7}{1} \right)$$

$$\frac{-15 - (-1)}{0 - (-2)} = \frac{-14}{2} = \left(\frac{-7}{1} \right)$$

$$\frac{-15 - 6}{0 - (-3)} = \frac{-21}{3} = \left(\frac{-7}{1} \right)$$