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Comparing Properties of Two Functions - Guided Lesson Explanation

Explanation#1

Slope is the rate of change. So we calculate the slope.

Calculate the slope of Function 1

$$\text{Slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\text{Slope} = \frac{24.70-30}{1-0}$$

Slope = -5.30

Slope of function 1 is -5.30.

Slope of function 2 is 10 is given in the question.

So Function 1 is an example of a function whose graph has a negative slope. Both functions have a positive starting amount; however, in function 1, the amount decreases 5.30 each week, while in function 2, the amount increases 10.00 each month.

Explanation#2

Slope is the rate of change. So calculate the slope.

Calculate the slope of Function 1

$$\text{Slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

Slope of function 1 is 2 is given in the question.

Calculate the slope of Function 2

$$\text{Slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

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Slope = $\frac{-2-(-4)}{0-(-2)}$

Slope = $\frac{2}{2}$

Slope = 1

So the answer is Function 1 has a greater slope than 2.

Explanation#3

Again we are looking for the slope in both instances.

Calculate the slope of Function 1

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

Slope = $\frac{30-25}{1-0}$

Slope = 5

Slope of function 1 is 5.

Slope of function 2 is 2 is given in the question.

The slope of function 1 is greater.