

Functions

1. It takes Josephine 34 minutes to complete her homework assignment of 10 problems. If we assume that she works at a constant rate, we can describe the situation using a function.

a) Write the two-variable linear equation that represents Josephine's constant rate of work.

(b) Use the equation you wrote in part (a) as the formula for the function to complete the table below. Round your answers to the hundredths place

Time taken to complete problems (x)	5	10	15	20	25
Number of problems completed (y)	1.47				

2. The table below represents the number of minutes Francisco spends at the gym each day for a week. Does the data shown below represent values of a function? Explain.

Day (x)	1	2	3	4	5	6	7
Time in minutes (y)	35	45	30	45	35	0	0

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1. It takes Josephine 34 minutes to complete her homework assignment of 10 problems. If we assume that she works at a constant rate, we can describe the situation using a function.

a) Write the two-variable linear equation that represents Josephine's constant rate of work.

Let y be the number of problems she can complete in x minutes.

$$\frac{10}{34} = \frac{y}{x}$$

$$y = \frac{10}{34}x$$

$$y = \frac{5}{17}x$$

(b) Use the equation you wrote in part (a) as the formula for the function to complete the table below. Round your answers to the hundredths place

Time taken to complete problems (x)	5	10	15	20	25
Number of problems completed (y)	1.47	2.94	4.41	5.88	7.35

2. The table below represents the number of minutes Francisco spends at the gym each day for a week. Does the data shown below represent values of a function? Explain.

Day (x)	1	2	3	4	5	6	7
Time in minutes (y)	35	45	30	45	35	0	0

Yes, the table can represent a function because each input has a unique output. For example, on day 1, Francisco was at the gym for 35 minutes.

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