Name: Date: Period:

HW #1.3: Is this a function or not?

1. Create a t-table of inputs and outputs that could be a function.

2. Create a t-table of inputs and outputs that is NOT a function.

3. Can the table shown below represent values of a function? Explain.

Input (x)	0.5	7	7	12	15
Output (y)	1	15	10	23	30

4. Can the table shown below represent values of a function? Explain.

Input (x)	10	20	50	75	90
Output (y)	32	32	156	240	288

5. 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. Predict how many problems Josephine can complete in 25 minutes.

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

c. Use the equation you wrote in part (b) 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				

After 5 minutes, Josephine was able to complete 1.47 problems, which means that she was able to complete 1 problem, then get about halfway through the next problem.

d. Compare your prediction from part (a) to the number you found in the table above.

e. Use the formula from part (b) to compute the number of problems completed when $x = -7$. Does your answer make sense? Explain.

f. For this problem, we assumed that Josephine worked at a constant rate. Do you think that is a reasonable assumption for this situation? Explain.