Algebra

Mr. Barnes

Unit 1 Test Review

Answers are at <http://haveaproblem.net>

1. Mr. Barnes needs your help planning a trip to Yosemite. From Mr. Barnes’s house to the cabin in which he will be staying is 220 miles. It will take him 4 hours to get there.

A. Please create a t-table and a graph that models Mr. Barnes’s trip.

B. What will his average speed be for this trip?

C. Can you declare variables and create a function that describes Mr.

 Barnes’s time and distance?

D. What is the Domain and Range of this function?

1. The function **C =** $\frac{5}{9}$**(F – 32)** converts Fahrenheit temperature inputs to Celsius temperature outputs.
2. What would a temperature of 41º F degrees be in Celsius?
3. What would a temperature of 49º F be in Celsius?
4. How about 94º F?
5. Please make a t-table and graph of this function.

E. What is the Domain and Range of this function?

1. The function **f(x) = -16x2 + 64** describes the relationship between time (x, the input) and distance from the ground (y, the output) of an eggplant dropped off of a roof.
2. What is the Domain of this Function?
3. Please make a t-table for this function starting with an input of 0 and going up by half-seconds.
4. Please make a graph for this function.
5. What is the Range of this function?
6. Are these functions? Why or why not?

A.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Input (x) | 2 | 3 | 4 | 5 | 6 |
| Output (y) | 4 | 4 | 4 | 4 | 4 |

B.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Input (x) | 2 | 6 | 8 | 3 | 6 |
| Output (y) | 1 | 2 | 3 | 4 | 5 |

C.

 

D.



5. Explain in your own words: What is a function and how can we use it?