# Math 2
Direct Variation

1) The time in seconds that thunder is heard after a lightning strike is directly proportional to number of miles away the lighting is. The following table shows the time in seconds after the lighting that the thunder is heard as a function of the number of miles away the lighting is.

a. Finish the table

Miles (m)	0	1	2	3	4	5	6	7	8	9	10
Sec (s)	0	0.2	0.4	0.6							

b. Graph
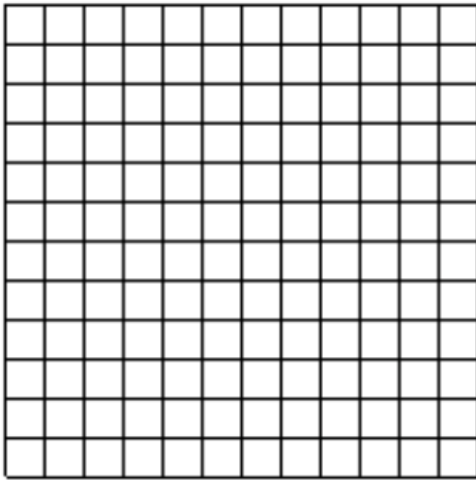
c. What is the change in seconds as the miles increase by one.

d. Using the table, divide the sec/miles. What do you get each time you divide no matter

e. Which of the following rules matches the graph and table?

$s = m + 0.2$ $\qquad$ $s = 0.2m$ $\qquad$ $m = s/0.2$ $\qquad$ $m = 0.2s$

f. Looking at the table, what happens to the corresponding y value when any x value is multiplied by 2?
   a) the y value is also multiplied by 2 $\qquad$ b) the y value is divided by 2
   c) nothing, there is no pattern $\qquad$ d) the y value is increased by 2

g. What will happen to the corresponding y value when any x value is multiplied by 3?
   a) the y value is also increased by 3 $\qquad$ b) nothing, there is no pattern
   c) the y value is divided by 3 $\qquad$ d) the y value is multiplied by 3