Math 111 – Quiz 2 Name Key

1. The process of finding a best-fit equation for a set of data points is called

regression.

2. A car travels at 56 mph. It decelerates by 8 mph each second.
   a) Write a function, s(t) for the speed of the car after t seconds of braking.

$s(t) = 56 - 8t$ or

$s(t) = -8t + 56$

   b) How long does it take for the car to come to a stop?

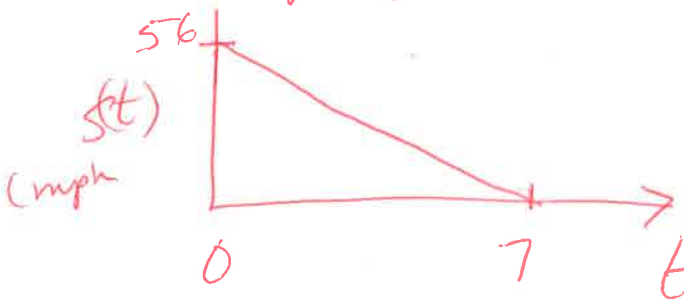
Stop ⇒ speed = 0

$0 = 56 - 8t$

$\frac{8t}{8} = \frac{56}{8}$, $t = 7$ seconds

   c) What is the domain of the function in part a)?

graphing (not required)



t (time) cannot be negative

speed cannot be negative (so the graph can't go beyond 7 seconds)

Thus, the domain is $[0, 7]$

or $\{t \mid 0 \le t \le 7\}$