QUIZ 1

Name _____

1. The predicted amount of rainfall for a tropical storm can be modeled by the equation $R(v) = 54.1(0.847^v)$ inches where v is the wind speed (in miles per hour) of the storm. State the units of measure of the input and output. Also, find predicted rainfall (according to this model) if wind speed is 6 mph.

2. The percentage of workers of age a years with flex schedules can be estimated using the function $P(a) = 0.000498a^3 - 0.0686a^2 + 3.044a - 14.952$ percent where a is between 16 and 65. Find $P(20)$ and interpret your answer (that is, restate it in an English sentence or two). Be sure to include units in your interpretation.

3. Rewrite the two functions $c(x) = 3x^2 - 2x + 5$ and $x(t) = 4 - 6t$ as a single composite function $c \circ x(t) = c(x(t))$.