5. [6 points] Let $W(d)$ be the probability that the great soccer player Pelénomial scores when he takes a shot d yards away from the goal line. Some values of $W(d)$ are given in the table below.

d	0	6	12	18
$W(d)$	0.94	0.4831	0.2483	

a. [2 points] Is $W(d)$ modeled better by a linear function or by an exponential function? *To receive credit, you must test <u>both</u> models <u>and</u> show all work.*

(Circle one) LINEAR EXPONENTIAL

b. [2 points] If you said above that $W(d)$ was linear, find its slope. If you said above that $W(d)$ was exponential, find its approximate growth factor. *Show all work or point to relevant work above. Give your answer rounded to two decimal places.*

SLOPE (if linear) / GROWTH FACTOR (if exponential): _____

c. [2 points] Use your work above to compute the probability that Pelénomial scores when he takes a shot 18 yards away from the goal line. *Show all work. Give your answer in exact form, or rounded to two decimal places.*

Answer: _____