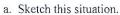Modeling Functions--Working Backward to find Initial Value (Increasing Situations)

Big Idea: Initial value is where a situation began. We can use clues, like rate of change to work backward and find and initial value.

Tara is saving for college. She is putting $60 a ~~month~~ **week.** in an account. After 8 weeks she has a total of $756.

a. Sketch this situation.

b. What is the rate of change? **$60 per week**

c. How much did Tara start with in her account?

$$
\begin{array}{r}
60 \\
\times\ 8 \\
\hline
480
\end{array}
\qquad
\begin{array}{r}
6756 \\
-480 \\
\hline
276
\end{array}
\qquad \$276
$$

d. Write an equation to represent the relationship between the amount in the account, *a*, and the number of weeks, *w*:

$a = 60w + 276$

Total Savings

756

8

# of Weeks