Dissecting Word Problems: Math & Science

Identifying important information in a word problem is key for success. This handout will show you the best practices for dissecting and understanding word problems.

Step	Example
Read through the problem once	The cost and revenue functions for a certain firm are given by $C(x) = 12x + 20,000$ and $R(x) = 20x$, respectively. Find the company's profit function. (Tan, 2015, p.158 #41)
Highlight key information	The cost and revenue functions for a certain firm are given by $C(x) = 12x + 20,000$ and $R(x) = 20x$, respectively. Find the company's profit function.
Organize key information Identify the goal and method needed	**Given Information:** ● Cost: $C(x) = 12x + 20,000$ ● Revenue: $R(x) = 20x$ **Goal:** Find the *profit function, P(x)*. **Method:** ● We know that $P(x) = R(x) - C(x)$ ● We will substitute our $R(x)$ & $C(x)$ from our given information into the $P(x)$ equation.
Solve the problem	$P(x) = 20x - (12x + 20,000)$ $P(x) = 20x - 12x - 20,000$ $P(x) = 8x - 20,000$

Tan, S. T. (2015). *Applied calculus for the managerial, life, and social sciences* (10th ed.). Stamford, CT: Cengage Learning, Inc.