1. The graph below represents the cost to buy hotdogs at a baseball game. The total cost depends on the number of hotdogs that a person buys.

   a) Does the graph represent direct or partial variation? How do you know?

   Cost of Eating At A Baseball Game vs. The Number of Dogs Purchased

   b) Determine the **rate of change**. What does it represent?

   > **TO DETERMINE THE RATE OF CHANGE**
   > 1. Find 2 spots on the line that go through a crosshair (plot points on them)
   > 2. Draw a right triangle connecting those 2 spots
   > 3. Determine the rise (height) and the run (length) of the triangle.
   > 4. The rate = $\dfrac{rise}{run}$
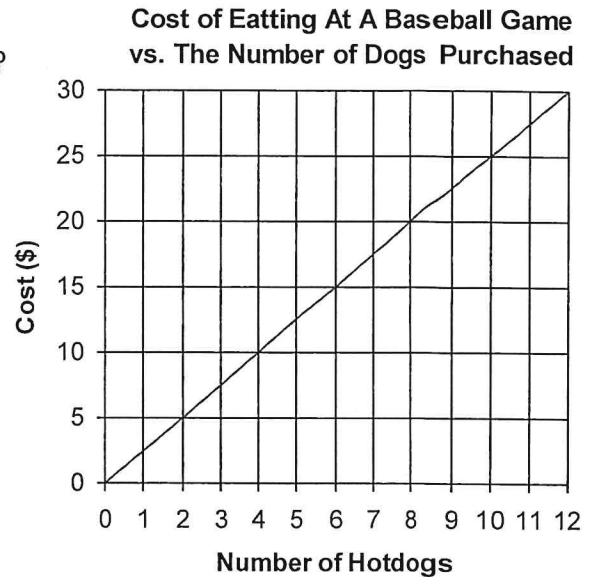
   c) What equation models the cost, C, in terms of the number of hotdogs purchased, n?

   d) A coach buys hotdogs for his team. Use your equation to determine how much it would cost to buy 14 hotdogs.
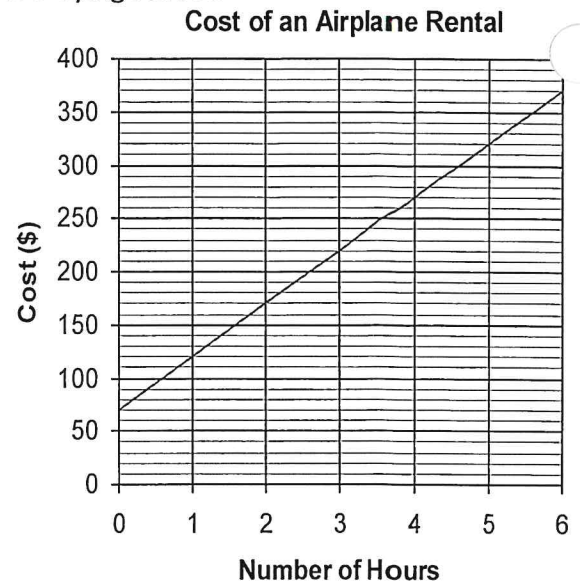
   e) If the coach has $40, use your equation to determine how many hotdogs he could buy.

2. The graph below represents the cost to rent an airplane from a flying school.

Cost of an Airplane Rental

a) Is this an example of direct or partial variation? How do you know?

b) What is the fixed cost? What does it represent?

c) What is the rate of change? What does it represent?

d) What equation models the cost, C, in terms of the hours, h?

e) Use your equation to determine how much it costs to rent a plan for 10 hours.

f) Use your equation to determine how many hours you can rent an airplane for if you have $1000 to spend.