1) What is the difference between an independent variable and a dependent variable?

Identify the independent variable and the dependent variable.

2) Let $T$ be the time (in minutes) it takes to grade $N$ assignments.

Sketch a graph that shows the relationship between the variables defined.

3) Let $m$ be the weight of a person at age $a$ years.

4) Let $n$ be the number of people willing to buy a digital camera at a price of $p$ dollars.

Solve the problem.

5) Jim lowers his hot-air balloon by gradually releasing air from the balloon. Let $y$ represent the height of Jim's balloon (in feet) $x$ minutes after he began releasing air from the balloon. Match the correct scenario with the following graph.

A) Jim kept releasing air from the balloon and landed.
B) Jim released air from the balloon for some time, then stopped to enjoy the countryside, and finally decided to land.
C) Jim enjoyed the countryside without lowering the balloon. He decided then to lower the balloon, and stayed at this height for a while. Then he decided to land.
D) Jim spent hours enjoying the countryside without lowering the balloon, before deciding to land.