Motion Lab Conclusions - Part A

1. Your graph of total time and total displacement is what shape? ______________
   This shows that displacement and time are _______________ proportional.

2. How do you change a proportion into an equation? ___________________

3. What does the constant tell you about your line? ______________

4. The slope of a line can be found by drawing a rise/run triangle. The general equation for slope is:
   \[
   \text{slope} = \frac{\Delta y}{\Delta x}
   \]

5. Follow instructions from video to find the slope of your "d vs t" graph. Show your work here.

6. In this lab, the slope should = _______ cm/s. The slope represented ________________.

7. The last column of data showed that the instantaneous velocity of the cart stayed at ________ cm/s.

8. The average velocity \( (d_{\text{total}} / t_{\text{total}}) \) = ________ cm/s.

9. The graph of the "v vs t" graph was a _________ (sloped, flat) line.

10. This type of motion is called __________________ motion.