Name: _____

Block: _____

Guided notes + Activity 2a.4
Graphs and linear relationships

1. Walk approximately five minutes around the top floor at a constant rate, recording your position every minute.

Time	0					
Position	0					

2. Graph your data for up to ten minutes. This will take a few steps, so listen to your teacher and write these notes down first:
   a. Choose the independent and dependent variable.

      The independent variable is _____ so it goes on the _____.

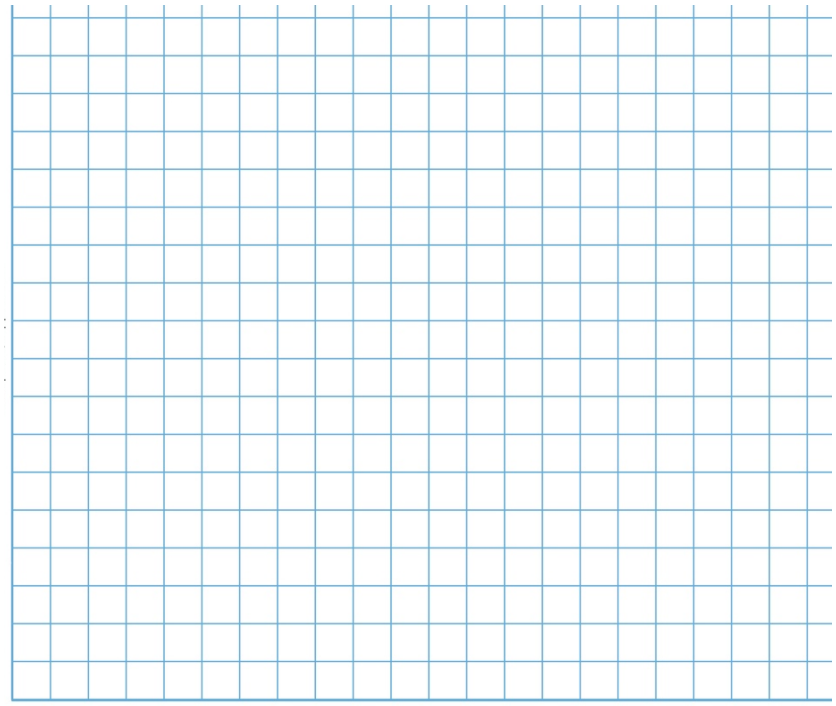
      The dependent variable is _____ so it goes on the _____.

      I chose these because _____

      _____

      _____

   b. Choose your scale to match the available paper. In this case, we need to leave room for _____. Label your axes.
   c. Graph each point as a coordinate pair. Include (0,0), so you will have six points on your graph.
   d. Draw a line of best fit through the six points. A line of best fit:



3. Interpolate: _____

   _____

   Interpolate to find your distance at time t = 2.5 min d = _____

   Find the time it took you to walk three laps: _____

4. Extrapolate: _____

   _____

   Extrapolate to find your distance at t = 6 min. d = _____

   Predict your distance after 10 min. d = _____

   How far do you think you could extrapolate this graph? Would it be valid after half an hour? How about after three hours, or twelve? Why?

   _____

   _____

   _____