Plot these graphs.

> ➜ You will need between 5 and 10 points on your graph to accurately see the shape of the graph.
> ➜ For each graph state what type of graph it it.
>   ◆ If the graph is linear: Find the slope.
> ➜ Record the y intercept for each graph.

1) The acceleration of the Space Shuttle is approximately $5.25\frac{m}{s^2}$. Plot this acceleration vs time.
2) How long will it take to reach escape velocity? Remember v=at. Plot the graph of v vs t and see how long it will take to reach escape velocity (11,000 m/s) Hint: it will take a lot of seconds to get there! Use multiples of 200 seconds, or change the units to minutes.
3) Now find out how far the shuttle has travelled. Plot distance vs time of the shuttle. See how far the shuttle travelled by the time it got to escape velocity. Remember: $d = \frac{at^2}{2}$.
4) The population of Kelowna is growing by 1.8%/year. Start in 2015 with a population of 106 000 people.
5) Gravity is strong close and weak far away. Plot the attraction of you and your friend as you get closer together. $F_g = G\frac{m_1 m_2}{r^2}$.
   $G = 6.6x10^{-11}\frac{m^3}{kg*s}$
6) When the police find a body one of the ways that time of death is determined is by the temperature. Alive people have a temperature of 37℃. Newton gave us a formula for how quickly an object cools. Let's say a body was found at 30℃ and the surrounding air was at 22℃. $Temperature = T_s + (T_0 - T_s)0.8^t$. Plot Temp vs time. T_s is the surrounding temperature and T_0 is the temperature of the object. t is time.