1. Parts per million
2. July 2011
3. The data curves only slightly,
4. x = 315.71, x = 390.19, 23.5%
5. maxima: 0.300= March minima: 0.708= August
6. Temperature changes and amount of sun exposure. March is a cold month and August is the hottest month. Rates of plant photosynthesis are much higher in August than in March, making for less CO2 in the atmosphere.
7. * 1. y = 1.5203x – 2669.8
     2. y = 1.8406x – 3310.9
     3. y = 2.1112x – 3854.4
     4. 1.5203
     5. 1.8406
     6. 2.1112
   1. The slope of the line indicated the rate at which the level of CO2 concentration is increasing.
   2. As you shorten the scope of the data, the value of the slope increases. At the full 53 years the slope is shortest and at 25 years it is tallest.
   3. This implies that within more recent years the rate of CO2 concentration is increasing quicker than in the past.
   4. y = 1.5203x – 2669.8

y = 1.5203(2050) – 2669.8

y = 446.815 ppm

* 1. It is possible that the CO2 concentration could end up being higher than 446.815 by 2050 given that the previous trend lines have shown rate increases in more recent times. If the trend of increased rate also increases, then the concentration will be higher than estimated.