


12th February	
<p>The population of country A is 4.5×10^6 4500000</p> <p>The population of country B is 1.2×10^7 12000000</p>	<p style="text-align: right;"> Corbettmaths</p> <p>Work out the difference between the population of country A and country B. Give your answer in standard form.</p> $\begin{array}{r} 12'000000 \\ - 4500000 \\ \hline 7500000 \end{array} \quad 7.5 \times 10^6$
<p>Twenty years ago, the population of country A was 3.8×10^6.</p> <p>Work out the percentage increase in population of country A over the past twenty years.</p>	$\frac{0.7 \times 10^6}{3.8 \times 10^6} \times 100$ $= 18.42\%$
<p>A is directly proportional to the square of B.</p> <p>When B = 10, A = 20.</p> <p>Find A when B = 20</p>	$A \propto B^2 \quad A = 0.2 \times B^2$ $A = kB^2 \quad A = 0.2 \times 20^2$ $20 = k \times 10^2 \quad = 80$ $20 = k \times 100$ $k = 0.2$
<p>A bag contains 6 yellow sweets and 4 blue sweets.</p> <p>A sweet is taken out at random, it is replaced, and another is taken out.</p> <p>Find the probability that at least one sweet is blue.</p>	$1 - P(YY)$ $P(YY) = \frac{6}{10} \times \frac{6}{10} = \frac{36}{100}$ $\frac{64}{100} = \frac{16}{25}$
<p>Calculate the size of angle ABC</p> $\frac{\sin 60}{18} = \frac{\sin ABC}{20}$ $0.04811... = \frac{\sin ABC}{20}$ $0.9622... = \sin ABC$ $ABC = 74.2^\circ$	