Topic 3

Percentage

1. Express 3 centimetres as a percentage of 6 metres. [2]
(N2011/P1/Q6b)

2. In 2009 the population of the United Kingdom was 6.1×10^7.
Between 1851 and 2009 the population of the United Kingdom increased by 173%.
Calculate the population in 1851. [2]
(N2011/P1/Q22bii)

3. Barry has a bag of marbles.
$\frac{3}{8}$ of the marbles are red.
70% of the **remaining** marbles are yellow.
The other 12 marbles are green.
How many marbles are in the bag altogether? [3]
(N2013/P1/Q11)

4. The average volume of water flowing over another waterfall is 8.69×10^3 litres per second.
After a rainstorm the volume of water increased to 2.48×10^4 litres per second.
Calculate the percentage increase in the volume of water flowing over the waterfall. [2]
(N2013/P1/Q21b)

5. The cash price of a television is $1475.
The hire-purchase price of the television is $1651.
The hire-purchase price is a deposit plus 12 equal monthly payments of $113.
Calculate the deposit as a percentage of the cash price. [3]
(N2018/P1/Q8)

6. In 2016, Ken earned a total of $44 000.
In 2017, he earned $3900 each month.
Calculate the percentage increase in his earnings from 2016 to 2017. [2]
(N2018/P2/Q2a)

7. The estimated number of Bengal tigers increased from 3200 in 2010 to 3890 in 2016.
The number increased by r% every year.
Find the value of r. [2]
(N2019/P1/Q5)