

PERCENTAGES

This material contains solved past papers. Every question bears the examination year and the original serial number.

1 Javed says that his eyes will blink 415 000 000 times in 79 years. 0580/2, 0581/2 Jun02

(a) Write 415 000 000 in standard form.

Answer (a) 4.15×10^8 [1]

(b) One year is approximately 526 000 minutes.

Calculate, correct to the nearest whole number, the average number of times his eyes will blink per minute.

Eyes blink 415 000 000 \rightarrow in $79 \times 526 000$ minutes
 $\therefore x \rightarrow$ in 1 min

$\therefore x \times (79 \times 526 000) = 415 000 000$
 $x = (415 000 000) \div (79 \times 526 000) = 9.98 = 10$
Answer (b) 10 [1]

15 In 1950, the population of Switzerland was 4 714 900.
In 2000, the population was 7 087 000.

(a) Work out the percentage increase in the population from 1950 to 2000.

% increase = $\frac{7087000 - 4714900}{4714900} \times 100$
Answer (a) 50.3 % [2]

(b) (i) Write the 1950 population correct to 3 significant figures.

Answer (b)(i) 4.71×10^6 [1]

(ii) Write the 2000 population in standard form.

Answer (b)(ii) 7.087×10^6 [1]

10 The area of a small country is 78 133 square kilometres.

(a) Write this area correct to 1 significant figure.

Note: Any number of
zero's after the
non-zero no isn't counted.

Answer(a) 80000 km² [1]

(b) Write your answer to part (a) in standard form.

Answer(b) 8×10^4 km² [1]
