Topic Test 1 (20 minutes)

Standard form - Higher

1 Here are five numbers.

47 000 4.5×10^4 5×10^3 2.8×10^5 125 000

Work out the difference between the largest and smallest numbers.

Give your answer in standard form.

[3 marks]

Answer _____

2 Work out $(5.9 \times 10^7) \div (2.3 \times 10^4)$

Give your answer in standard form to 2 significant figures.

[3 marks]

Answer _____

3 Solve $\dfrac{x}{0.02} = 3.1 \times 10^{-4}$

Give your answer in standard form.

[2 marks]

_____

_____

$x = $ _____

4 In total, tourists visiting a country spent £5.2 × 10^8

On average each tourist spent £645

How many tourists visited the country?

Give your answer in standard form to an appropriate degree of accuracy.

[3 marks]

_____

_____

_____

_____

_____

Answer _____

AQA Education (AQA) is a registered charity (number 1073334) and a company limited by guarantee registered in England and Wales (number 3644723). Our registered address is AQA, Devas Street, Manchester M15 6EX.

2 of 4

5   Here are the probabilities of two independent events.

Event A 2.7×10^{-2}
Event B 3.4×10^{-4}

5 (a)   How many times more likely is event A than event B?

[2 marks]

Answer _____

5 (b)   Work out the probability of only one of the events happening.

Give your answer to 3 significant figures.

[4 marks]

Answer _____

6 In the body, the ratio of the number of red blood cells to the total of all cells $= 5 : 9$

It is estimated that there are 3.72×10^{13} cells in total.

Work out the number of red blood cells.

Give your answer in standard form to an appropriate degree of accuracy.

[3 marks]

Answer _____