N115 Standard form

Q1.

(a) Write 0.000 423 in standard form.

.....

(1)

(b) Write 4.5×10^4 as an ordinary number.

.....

(1)

(Total for question is 2 marks)

Q2.

(a) Write 32 460 000 in standard form.

.....

(1)

(b) Write 4.96×10^{-3} as an ordinary number.

.....

(1)

Asma was asked to compare the following two numbers.

$A = 6.212 \times 10^8$ and $B = 4.73 \times 10^9$

She says,

"6.212 is bigger than 4.73 so A is bigger than B."

(c) Is Asma correct?

You must give a reason for your answer.

.....

.....

.....

(1)

(Total for question = 3 marks)

Q3.

Work out the value of $(9 \times 10^{-4}) \times (3 \times 10^{7})$ Give your answer in standard form.

.....

(Total for question = 2 marks)

Q4.

(a) Write 2.673×10^{4} as an ordinary number.

.....

(1)

(b) Write 0.0704 in standard form.

.....

(1)

(c) Calculate $(4.5 \times 10^{6}) \div (3 \times 10^{-2})$
Give your answer in standard form.

.....

(2)

(Total for question = 4 marks)

Q5.

Work out $(13 \times 10^{7}) \times (5 \times 10^{-12})$
Give your answer as an ordinary number.

.....

(Total for question = 2 marks)

Q6.

Work out $\dfrac{0.06 \times 0.0003}{0.01}$

Give your answer in standard form.

.....

(Total for question = 3 marks)

Q7.

Work out $(3.5 \times 10^{-7}) \div (7 \times 10^{-6})$
Give your answer in standard form.

.....

(Total for question = 2 marks)

Q8.

(a) Write 340 000 000 in standard form.

.....

(1)

(b) Work out $(1.6 \times 10^{-7}) \div (8 \times 10^{-3})$

Give your answer as an ordinary number correct to 3 significant figures.

.....

(2)

(Total for question = 3 marks)

Q9.

(a) Write 4.7×10^{-1} as an ordinary number.

.....

(1)

(b) Work out the value of $(2.4 \times 10^3) \times (3 \times 10^5)$

Give your answer in standard form.

.....

(2)

(Total for question = 3 marks)

Q10.

One uranium atom has a mass of 3.95×10^{-22} grams.

(a) Work out an estimate for the number of uranium atoms in 1kg of uranium.

.....

(3)

(b) Is your answer to (a) an underestimate or an overestimate?
Give a reason for your answer.

.....

.....

(1)

(Total for question = 4 marks)

Q11.

Write the following numbers in order of size.
Start with the smallest number.

0.045×10^3 4.5×10^{-3} 450 0.45×10^{-1}

.....

(Total for question = 2 marks)

Q12.

(a) Write 7.97×10^{-6} as an ordinary number.

.....

(1)

(b) Work out the value of $(2.4 \times 10^5) \div (4 \times 10^{-3})$

Give your answer in standard form.

.....

(2)

(Total for question = 3 marks)

Q13.

(a) Write 0.00549 in standard form.

.....

(1)

(b) Find the value of $(8 \times 10^3)^2$

Give your answer in standard form.

.....

(2)

(c) Find the value of $(7 \times 10^5) + (8 \times 10^4)$

Give your answer in standard form.

.....

(2)

(Total for question = 5 marks)