Standard Form

Question Paper

Level	OCR
Subject	Maths
Exam Board	GCSE (9-1)
Topic	Fractions, Decimals and Percentages
Sub Topic	Standard Form
Grade Level	Grade 5
Booklet	Question Paper

Time Allowed: **26 minutes**

Score: **/21**

Percentage: **/100**

1 **(a)** Write 6.9×10^{-3} as an ordinary number.

(a) ..... **[1]**

(b) The table shows the population and area of each of the countries in the United Kingdom in 2012.

	England	**Scotland**	**Wales**	**Northern Ireland**
Population	5.4×10^7	5.3×10^6	3.1×10^6	1.8×10^6
Area (km^2)	1.3×10^5	7.8×10^4	2.1×10^4	1.4×10^4

(i) Use the table to work out the total population of the United Kingdom in 2012.
Give your answer in standard form.

(b)(i) ..... **[2]**

(ii) Which of the four countries has the smallest population density?
You must show all your working to justify your answer. **[4]**

2 **(a)** Write this ordinary number in standard form.

725 000

(a) ..... **[1]**

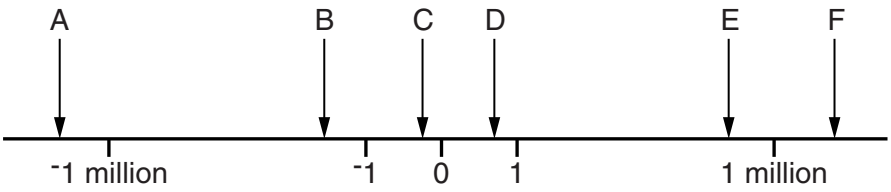
(b) Which of these numbers is bigger?
Explain how you know.

3.6×10^{-4} 3.6×10^{-5}

..... is bigger because .....

..... **[2]**

3 This number line is **not** to scale.



The arrows show roughly the position of some standard form numbers.

Which arrow represents

(a) 8×10^{5},

(a) Arrow _____ **[1]**

(b) -7×10^{-6},

(b) Arrow _____ **[1]**

(c) 3×10^{-2}?

(c) Arrow _____ **[1]**

4 Use your calculator to work these out.

(a) $4\frac{2}{3} - 1\frac{3}{4}$

Give your answer as a mixed number.

(a) _____ **[1]**

(b) 8^{-2}

Give your answer as a decimal.

(b) _____ **[1]**

(c) $(\sqrt{5})^6$

(c) _____ **[1]**

(d) $(9.1 \times 10^4) \times (3.8 \times 10^3)$

Give your answer in standard form.

(d) _____ **[2]**

5 **(a)** When 7.2×10^{-10} is written as an ordinary number, how many zeros are there **after** the decimal point?

(a) ..... **[1]**

(b) Work out.

$$(1.6 \times 10^4)^2$$

Write your answer in standard form.

(b) ..... **[2]**