Team Challenge 1

**Q1.**          (a)     Write 6.4 × 104 as an ordinary number.

..........................................................................

**(1)**

(b)     Write 0.0039 in standard form.

..........................................................................

**(1)**

(c)     Write 0.25 × 107 in standard form.

..........................................................................

**(1)**

**(Total 3 marks)**

**Q2.**          (a)     Write 64 000 in standard form.

.....................................

**(1)**

(b)     Write 156 × 10–7 in standard form.

.....................................

**(1)**

**(Total 2 marks)**

Team Challenge 2

**Q1.**          (a)     Write the number 39 000 in standard form.

..........................

**(1)**

(b)     Write 7.21 × 10–3 as an ordinary number.

..........................

**(1)**

**(Total 2 marks)**

**Q2.**          Work out (3 × 106) × (5 × 10–4).

Give your answer in standard form.

..................................................

**(Total 2 marks)**

**Q3.**          The number of atoms in one kilogram of helium is 1.51 × 1026

Calculate the number of atoms in 20 kilograms of helium.  
Give your answer in standard form.

..............................................

**(Total 2 marks)**

Team Challenge 3

**Q1.**          Work out (3 × 106) × (5 × 10–4).

Give your answer in standard form.

..................................................

**(Total 2 marks)**

**Q2.**          Work out (2.5 × 109) ÷ (5 × 103).

          Give your answer in standard form.

.........................

**(Total 2 marks)**

**Q3.**          The population of Algeria is 34 million.

(a)     Write 34 million in standard form.

.....................................

**(1)**

          The total land area of Algeria is 2.4 × 1012 m2.  
5% of the total land area is used to grow crops.

(b)     Work out the area of land in Algeria which is used to grow crops.  
Write your answer in standard form, in km2.

..................................... km2

**(2)**

**(Total 3 marks)**

 Team Challenge 4

**Q1.**          Work out (3 × 106) × (5 × 10–4) ÷ (2 × 104)

Give your answer in standard form.

..................................................

**(Total 2 marks)**

**Q2.**          Work out (3 × 103) × (2.5 × 109) ÷ (5 × 103).

          Give your answer in standard form.

.........................

**(Total 2 marks)**

**Q3.**          Work out (3.2 × 10-2) × (5 × 10–4) ÷ (4 × 104)

Give your answer in standard form.

..................................................

**(Total 2 marks)**

**Q4.**          Work out (4 × 10-6) ÷ (5 × 10-3) × (2.5 × 107)

          Give your answer in standard form.

.........................

**(Total 2 marks)**

Team Challenge 1

**Q1.**          (a)     Write 6.4 × 104 as an ordinary number.

  64000

..........................................................................

**(1)**

(b)     Write 0.0039 in standard form.

  3.9 × 10-3

..........................................................................

**(1)**

(c)     Write 0.25 × 107 in standard form.

  2.5 × 106

..........................................................................

**(1)**

**(Total 3 marks)**

**Q2.**          (a)     Write 64 000 in standard form.

  6.4 × 104

.....................................

**(1)**

(b)     Write 156 × 10–7 in standard form.

  1.56 × 10-5

.....................................

**(1)**

**(Total 2 marks)**

Team Challenge 2

**Q1.**          (a)     Write the number 39 000 in standard form.

3.9 × 104

..........................

**(1)**

(b)     Write 7.21 × 10–3 as an ordinary number.

  0.00721

..........................

**(1)**

**(Total 2 marks)**

**Q2.**          Work out (3 × 106) × (5 × 10–4).

Give your answer in standard form.

  1.5 × 103

..................................................

**(Total 2 marks)**

**Q3.**          The number of atoms in one kilogram of helium is 1.51 × 1026

Calculate the number of atoms in 20 kilograms of helium.  
Give your answer in standard form.

  3.02 × 1027

..............................................

**(Total 2 marks)**

Team Challenge 3

**Q1.**          Work out (3 × 106) × (5 × 10–4).

Give your answer in standard form.

   1.5 × 103

..................................................

**(Total 2 marks)**

**Q2.**          Work out (2.5 × 109) ÷ (5 × 103).

          Give your answer in standard form.

  5 × 105

.........................

**(Total 2 marks)**

**Q3.**          The population of Algeria is 34 million.

(a)     Write 34 million in standard form.

   3.4 × 107

.....................................

**(1)**

          The total land area of Algeria is 2.4 × 1012 m2.  
5% of the total land area is used to grow crops.

(b)     Work out the area of land in Algeria which is used to grow crops.  
Write your answer in standard form, in km2.

1.2 × 1011

..................................... km2

**(2)**

**(Total 3 marks)**

 Team Challenge 4

**Q1.**          Work out (3 × 106) × (5 × 10–4) ÷ (2 × 104)

Give your answer in standard form.

   7.5 × 10-2

..................................................

**(Total 2 marks)**

**Q2.**          Work out (3 × 103) × (2.5 × 109) ÷ (5 × 103).

          Give your answer in standard form.

  1.5 × 109

.........................

**(Total 2 marks)**

**Q3.**          Work out (3.2 × 10-2) × (5 × 10–4) ÷ (4 × 104)

Give your answer in standard form.

   4 × 10-10

..................................................

**(Total 2 marks)**

**Q4.**          Work out (4 × 10-6) ÷ (5 × 10-3) × (2.5 × 107)

          Give your answer in standard form.

  2 × 104

.........................

**(Total 2 marks)**