STANDARD FORM

Task 1

1) Write 5,200 in standard form.
   5.2×10^3

2) Write 4.7×10^3 as an ordinary number.
   4,700

3) Write 8,900,000 in standard form.
   8.9×10^6

4) Write 3.1×10^5 as an ordinary number.
   310,000

5) Write 7,000 in standard form.
   7×10^3

6) Write 9.45×10^6 as an ordinary number.
   9,450,000

7) Write 1,020 in standard form.
   1.02×10^3

8) Write 82,000 in standard form.
   8.2×10^4

9) Write 4.002×10^7 as an ordinary number.
   40,020,000

10) Write 4 million in standard form.
   4×10^6

Task 2

11) Write 0.0035 in standard form.
   3.5×10^{-3}

12) Write 2.1×10^{-4} as an ordinary number.
   0.00021

13) Write 0.000009 in standard form.
   9×10^{-6}

14) Write 6.8×10^{-2} as an ordinary number.
   0.068

15) Write 0.045 in standard form.
   4.5×10^{-2}

16) Write 7.08×10^{-5} as an ordinary number.
   0.0000708

17) Write 0.00031 in standard form.
   3.1×10^{-4}

18) Write 5.03×10^{-3} as an ordinary number.
   0.00503

19) Write 0.00000042 in standard form.
   4.2×10^{-7}

20) Write 1.005×10^{-6} as an ordinary number.
   0.000001005

Task 3

21) The population of Town A is 3.2×10^5 and the population of Town B is 280,000. Which town has more people?
   Town A has 320,000; **Town A**

22) Which is larger: 7.5×10^6 or 75,000,000?
   $75,000,000 = 7.5 \times 10^7$; **75,000,000**

23) A grain of sand has a mass of 5.6×10^{-4} grams. Write this in ordinary form.
   0.00056 grams

24) Which is smaller: 0.00023 or 3.1×10^{-5}?
   $3.1 \times 10^{-5} = 0.000031$; **$3.1 \times 10^{-5}$**

25) A library has 8.09×10^4 books. Write the number of books as an ordinary number.
   80,900 books

26) Which is larger: 4.3×10^{-4} or 0.00043?
   $4.3 \times 10^{-4} = 0.00043$
   The numbers are equal.

27) The Sun is 1.496×10^8 km away from Earth. Write this distance as an ordinary number.
   149,600,000 km

28) Which is larger: 2.15×10^3 or 21,500?
   $2.15 \times 10^3 = 2,150$; **21,500**

29) A virus is 0.000000075 m in length. Write this in standard form.
   7.5×10^{-8}

30) Write the following numbers in order of size, starting with the smallest number.
   5.2×10^2 0.0052×10^3 5200×10^{-4} 52
   $5.2 \times 10^2 = 520$
   $0.0052 \times 10^3 = 5.2$
   $5200 \times 10^{-4} = 0.52$

   5200×10^{-4}, 0.0052×10^3,   52, 5.2×10^2

31) Write the following numbers in order of size, starting with the smallest number.
   48×10^0 4.8×10^2 0.048×10^5 480×10^{-2}
   $48 \times 10^0 = 48$
   $4.8 \times 10^2 = 480$
   $0.048 \times 10^5 = 4800$
   $480 \times 10^{-2} = 4.8$

   480×10^{-2}, 48×10^0, 4.8×10^2, 0.048×10^5

Challenge – Write the following numbers in standard form.

32) 24.6×10^4

   2.46×10^5

33) 0.034×10^5

   3.4×10^3

34) 267.8×10^8

   2.678×10^{10}

35) 0.00067×10^2

   6.7×10^{-2}

36) 0.000009×10^{-3}

   9×10^{-9}

37) $7,000,000 \times 10^{-6}$

   7×10^0

38) 0.000485×10^2

   4.85×10^{-2}

39) 0.0021×10^{-7}

   2.1×10^{-10}

40) $4,567,000 \times 10^{-4}$

   4.567×10^2