

WORKSHEET - LESSON (6)

Quest ①: - Express in Scientific Notation:

a) $753 =$

e) $.0046 =$

b) $4000 =$

f) $.0475 =$

c) $600 =$

g) $.00008 =$

d) $5500 =$

h) $134.65 =$

Quest ② - Round off the following to 3 significant figures:

a) $54.267 \Rightarrow$

d) $.0042751 \Rightarrow$

b) $5.67251 \Rightarrow$

e) $.041112 \Rightarrow$

c) $23416 \Rightarrow$

f) $9876543.21 \Rightarrow$

Quest ③ - Round these numbers correct to 2 decimal places

(a) 54.267

(b) 5.69987

(c) $.00746$

Quest ④

(a) Find 35% of \$360

(b) What percentage of 48 is 36

c) Increase \$300 by 45%

(d) Decrease 350 mm by 30%

1) a) 7.53×10^2 b) 4×10^3 c) 6×10^2 d) 5.5×10^3 e) 4.6×10^{-3} f) 4.75×10^{-2} g) 8×10^{-5}

2) a) 1.3465×10^{-2} (2) a) 54.3 b) 5.67 c) 23400 d) 0.00428 e) $.0411$ f) 9880000

3) a) 54.27 b) 5.70 c) 0.01 (4) a) \$126 b) $3/4$ c) \$435 d) 245

ANSWERS

③ SCIENTIFIC NOTATION (sometimes called STANDARD NOTATION)

All numbers are expressed (re-written) as the product of a decimal (between 1 and 10) and a power of 10

For example:

$$\begin{aligned} 2450 &= 2.45 \times 10^3 \\ 0.035 &= 3.5 \times 10^{-2} \\ 1500000 &= 1.5 \times 10^6 \\ 0.0004 &= 4.0 \times 10^{-4} \end{aligned}$$

*Notice how the "decimal point" is always placed immediately after the first "non-zero" digit.
And the power of ten = the number of "places" you moved the decimal point (+ for BIG, - for SMALL numbers.)

Exercise

Express the following numbers in Scientific notation.

1) 800 =

2) 4000 =

3) 5500 =

4) 740 =

5) 12509 =

6) 0.034 =

7) 0.0056 =

8) 0.00008 =

9) 0.125 =

10) 0.7 =

④ Round off the following numbers

a) 3895 to the nearest 100 =

b) 54.48 to the nearest whole number =

c) 3895 to the nearest 1000 =

d) 54.481 to one decimal place =

e) 4.1081 to two decimal places =

f) 5.176 metres to the nearest cm. =

g) 4.15×10^4 grams to the nearest kg =

h) 24.0519 to 3 significant figures =

i) 8.004 to 2 significant figures =

j) 19.8×10^5 to 2 sign. figs. =