

RD Sharma
Solutions

Class 7

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Exercise 64

Q.1 Write the following numbers in the expanded exponential forms:

(i) 20068

(ii) 420719

(iii) 7805192

(iv) 5004132

(v) 927303

Solution (i) $20068 = 2 \times 10000 + 0 \times 1000 + 0 \times 100$
 $+ 6 \times 10 + 8 \times 1$

$$= 2 \times 10^4 + 0 \times 10^3 + 0 \times 10^2 + 6 \times 10^1 + 8 \times 10^0$$

(ii) $420719 = 4 \times 100000 + 2 \times 10000 + 0 \times 1000$
 $+ 7 \times 100 + 1 \times 10 + 9 \times 1$

$$= 4 \times 10^5 + 2 \times 10^4 + 0 \times 10^3 + 7 \times 10^2 + 1 \times 10^1 + 9 \times 10^0$$

(iii) $7805192 = 7 \times 1000000 + 8 \times 100000 + 0 \times 10000$

$$+ 5 \times 1000 + 1 \times 100 + 9 \times 10 + 2 \times 1$$

$$= 7 \times 10^6 + 8 \times 10^5 + 0 \times 10^4 + 5 \times 10^3 + 1 \times 10^2$$

$$+ 9 \times 10^1 + 2 \times 10^0$$

$$\begin{aligned}
 \text{(iv)} \quad 5004132 &= 5 \times 1000000 + 0 \times 100000 + 0 \times 10000 \\
 &\quad + 4 \times 1000 + 1 \times 100 + 3 \times 10 + 2 \times 1 \\
 &= 5 \times 10^6 + 0 \times 10^5 + 0 \times 10^4 + 4 \times 10^3 + 1 \times 10^2 + 3 \times 10^1 \\
 &\quad + 2 \times 10^0
 \end{aligned}$$

$$\begin{aligned}
 \text{(v)} \quad 927303 &= 9 \times 100000 + 2 \times 10000 + 7 \times 1000 + 3 \times 100 \\
 &\quad + 0 \times 10 + 3 \times 1 \\
 &= 9 \times 10^5 + 2 \times 10^4 + 7 \times 10^3 + 3 \times 10^2 + 0 \times 10^1 + 3 \times 10^0
 \end{aligned}$$

Q.2 Find the number from each of the following expanded forms.

$$\text{(i)} \quad 7 \times 10^4 + 6 \times 10^3 + 0 \times 10^2 + 4 \times 10^1 + 5 \times 10^0 = 76045$$

$$\text{(ii)} \quad 5 \times 10^5 + 4 \times 10^4 + 2 \times 10^3 + 3 \times 10^0 = 542003$$

$$\text{(iii)} \quad 9 \times 10^5 + 5 \times 10^2 + 3 \times 10^1 = 900530$$

$$\text{(iv)} \quad 3 \times 10^4 + 4 \times 10^2 + 5 \times 10^0 = 30405$$