

5.4 Numbers in Expanded Form

Expanded form of a number can be obtained by breaking it and using the place value of digits in the number.

Example 1 : Write the expanded form of number 48.

$$\begin{array}{l} 4 \quad 8 \\ \left. \begin{array}{l} \end{array} \right\} 8 \text{ ones } (8 \times 1 = 8) \\ \left. \begin{array}{l} 4 \end{array} \right\} 4 \text{ tens } (4 \times 10 = 40) \end{array}$$

Expanded form of number
 $48 = 40 + 8.$

Example 2 : Write the expanded form of number 90.

$$\begin{array}{l} 9 \quad 0 \\ \left. \begin{array}{l} \end{array} \right\} 0 \text{ ones } (0 \times 1 = 0) \\ \left. \begin{array}{l} 9 \end{array} \right\} 9 \text{ tens } (9 \times 10 = 90) \end{array}$$

Expanded form of number
 $90 = 90 + 0.$

Exercise

Write the numbers given below in expanded form :

- 25 = $20 + 5$
- 32 = $30 + 2$
- 39 = $30 + 9$
- 66 = $60 + 6$
- 79 = $70 + 9$
- 82 = $80 + 2$
- 98 = $90 + 8$
- 56 = $50 + 6$
- 67 = $60 + 7$
- 19 = $10 + 9$
- 73 = $70 + 3$
- 55 = $50 + 5$

- 59 = $50 + 9$
- 97 = $90 + 7$
- 16 = $10 + 6$
- 89 = $80 + 9$
- 74 = $70 + 4$
- 24 = $20 + 4$
- 78 = $70 + 8$
- 86 = $80 + 6$
- 90 = $90 + 0$
- 72 = $70 + 2$
- 36 = $30 + 6$
- 99 = $90 + 9$

5.5 Numbers in Compact Form

The compact form of a number is written using the digits 0-9 according to their place value.

Example 1 : Write $80 + 7$ in compact form.

$$\begin{array}{r} 80 + 7 \\ \text{---} \quad \text{---} \\ \quad \quad \quad \text{7 ones} \\ \quad \quad \quad \text{8 tens} \end{array}$$

Compact form of $\underline{80} + \underline{7} = 87$

Example 2 : Write $40 + 0$ in compact form.

$$\begin{array}{r} 40 + 0 \\ \text{---} \quad \text{---} \\ \quad \quad \quad \text{0 ones} \\ \quad \quad \quad \text{4 tens} \end{array}$$

Compact form of $\underline{40} + \underline{0} = 40$

Exercise

Write in compact form

1. $20 + 6 = 26$

2. $30 + 6 = 36$

3. $60 + 8 = 68$

4. $30 + 8 = 38$

5. $20 + 3 = 23$

6. $40 + 7 = 47$

7. $50 + 0 = 50$

8. $00 + 2 = 2$

9. $10 + 7 = 17$

10. $60 + 2 = 62$

11. $80 + 8 = 88$

12. $50 + 2 = 52$

13. $70 + 6 = 76$

14. $60 + 4 = 64$

15. $00 + 8 = 8$

16. $00 + 1 = 1$

17. $20 + 2 = 22$

18. $60 + 6 = 66$

19. $50 + 7 = 57$

20. $60 + 9 = 69$

21. $40 + 4 = 44$

22. $30 + 3 = 33$

23. $20 + 7 = 27$

24. $30 + 9 = 39$