

P.3 Mathematics

Lesson one

Sub topic: Expanding numbers using values

Steps.

1. Write the number to be expanded
2. Identify place values of each digit
3. Write the digit and its place value
4. Find the value of each digit.

Examples

1. Expand 46 using values.

$$\begin{aligned} &= 4 \text{ tens} + 6 \text{ ones} \\ &= (4 \times 10) + (6 \times 1) \\ &= 40 + 6 \end{aligned}$$

2. Write 205 in expanded for using values.

$$\begin{aligned} &= 2 \text{ hundreds} + 0 \text{ tens} + 5 \text{ ones} \\ &= (2 \times 100) + (0 \times 10) + (5 \times 1) \\ &= 200 + 0 + 5 \end{aligned}$$

Activity:

Expand the following numbers using values.

- a) 17
- b) 60
- c) 473
- d) 509
- e) 4124

Lesson two

Sub topic: Writing expanded numbers in short form

Steps.

1. Read expanded numbers
2. Identify place values of each digit
3. Write the place values
4. Arrange the digit vertically in their correct place values.
5. Add correctly from ones to get the expanded number.

Examples

1. Write $80 + 2$ in short form

$$\begin{array}{r} \text{T O} + \text{O} \\ 80 + 2 \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 8 \quad 0 \\ + \quad 2 \\ \hline 8 \quad 2 \end{array}$$

$$\therefore 80 + 2 = 82$$

2. What number is expanded to give $700 + 40 + 3$

$$\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \quad + \quad \text{T} \quad \text{O} \quad + \quad \text{O} \\ 7 \quad 0 \quad 0 \quad + \quad 4 \quad 0 \quad + \quad 3 \end{array}$$

$$\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 7 \quad 0 \quad 0 \\ \quad \quad 4 \quad 0 \\ + \quad \quad \quad 3 \\ \hline 7 \quad 4 \quad 3 \end{array}$$

$$\therefore 700 + 40 + 3 = 743$$

Activity.

1. Write the following in short.
- $20 + 3$
 - $70 + 2$
 - $300 + 50 + 4$
 - $900 + 6$
2. What number has been expanded to give $6000 + 600 + 60 + 6$?

Lesson three

Sub topic: Writing figures in words.

Note: Basic number words

- 4 – Four
- 8 – Eight
- 10 – Ten
- 20 – Twenty
- 30 – Thirty
- 40 – Forty
- 50 – Fifty
- 80 – Eighty
- 90 – Ninety
- 500 – Five hundred

Steps

1. Identify place values and values of whole numbers
2. Read digits and the place values
3. Write figures in words

Examples.

1. Write 23 in words.

$$\begin{array}{cc} \text{T} & \text{O} \\ 2 & 3 \end{array} = 2 \text{ tens } 3 \text{ ones}$$

= Twenty three.

2. Write 456 in words.

$$\begin{array}{ccc} \text{H} & \text{T} & \text{O} \\ 4 & 5 & 6 \end{array} = 4 \text{ hundreds } 5 \text{ tens } 6 \text{ ones}$$

= Four hundred fifty six

Activity.

Write the following in words

- a) 18
- b) 146
- c) 291
- d) 607
- e) 682

Lesson four

Sub topic: Writing number words in figures

Steps:

1. Identify the place value of each digit.
2. Give the values expanded
3. Add correctly to get the figure

Examples

1. Write sixteen in figures

16
—

2. Write ninety seven in figures.

$$\begin{array}{r} \text{T} \quad \text{O} \\ \text{Ninety} \quad 9 \quad 0 \\ \text{Seven.} \quad + \quad 7 \\ \hline \text{Ninety-seven.} \quad 9 \quad 7 \end{array}$$

3. Write in figures' Four hundred eighty three.

$$\begin{array}{r} \text{HTO} \\ \text{Four hundred} \quad 400 \\ \text{Eighty} \quad \quad \quad 8 \quad 0 \\ \text{Three} \quad \quad \quad + \quad \quad 3 \\ \hline \text{Four hundred Eighty Three} \quad 4 \quad 8 \quad 3 \end{array}$$

Activity.

Write the following in figures or number symbols.

1. Nineteen
2. Seventy eight
3. Three hundred two
4. One hundred forty six
5. Five thousand, two hundred thirty four.

Lesson five

Sub topic: Addition of whole numbers with out regrouping.

Steps:

1. Read numbers to added
2. Identify the place value foreach digit
3. Arrange digits vertically according to place values
4. Add correctly starting with the ones
5. Write answers in the correct place values

Examples.

1. Add: $14 + 22$

$$\begin{array}{r} \text{TO} \quad \text{TO} \\ 14 + 22 \\ \text{T} \quad \text{O.} \\ 14. \quad \text{Ones} \quad 4+2=6 \\ +2 \quad 2 \quad \text{Tens} \quad 1+2=3 \\ \hline \mathbf{36} \end{array}$$

2. Add : $63 + 35$

$$\begin{array}{r} \text{TO} \quad \text{TO} \\ 63 + 35 \\ \\ \text{TO} \\ 63 \quad \text{Ones } 3+5=8 \\ +35 \quad \text{Tens } 6+3=9 \\ \hline 98 \end{array}$$

Activity.

Add the following correctly

- a) $42 + 51$
- b) $32 + 16$
- c) $71 + 21$
- d) $89 + 10$
- e) $72 + 25$
- f) $55 + 41$