## Worksheet

1. Bihar has more population by

$$\begin{array}{r} {\scriptstyle (11)(17)(14)(9)(9)(12)(15)(14)} \\ \cancel{1}\cancel{2},\cancel{8}\cancel{5},\cancel{0}\cancel{0},\cancel{3}\cancel{6}\cancel{4} \\ -\ 7,9502,477 \\ \hline 4,89,97,887 \end{array}$$

2. Combined population of Uttar Pradesh, Uttarakhand and Himachal Pradesh is

$$\begin{array}{r} {\scriptstyle (1)\ (1)\qquad (1)(1)} \\ 23,15,02,578 \\ 1,17,00,099 \\ +\quad 75,03,010 \\ \hline 25,07,05,687 \end{array}$$

3. Combined population of Manipur, Meghalaya, Mizoram, Nagaland and Tripura is 1,47,76,051.

$$\begin{array}{r} {\scriptstyle (1)(2)(2)(3)(2)(3)} \\ 34,36,948 \\ 37,72,103 \\ 13,08,967 \\ 20,73,074 \\ +\quad 41,84,959 \\ \hline 1,47,76,051 \end{array}$$

Combined population of Kerala, Karnataka, Tamil Nadu and Maharashtra is 31,29,00,479.

Clearly, 31,29,00,479 > 1,47,76,051.

$$\begin{array}{r} {\scriptstyle (2)(2)(2)(3)(3)(2)(2)} \\ 3,46,98,876 \\ 6,95,99,762 \\ 8,36,97,770 \\ +\ 12,49,04,071 \\ \hline 31,29,00,479 \end{array}$$

4. (a) The population of Uttar Pradesh is less than the combined population of Bihar and West Bengal — True

   (b) The state of Sikkim has the least population — True

5. States are Assam, Chhattisgarh, Haryana, Jharkhand, Kerala, Odisha, Punjab, Uttarakhand and Telangana = 29,93,56,099.

$$\begin{array}{r} {\scriptstyle (3)(4)(4)(4)(4)(4)(3)} \\ 3,59,98,752 \\ 3,21,99,722 \\ 2,89,00,667 \\ 4,01,00,376 \\ 3,46,98,876 \\ 4,70,99,270 \\ 3,05,01,026 \\ 1,17,00,099 \\ +\quad 3,81,57,311 \\ \hline 29,93,56,099 \end{array}$$

6. Gujarat = 7,04,00,153 = 70,400,153 = Seventy million four hundred thousand one hundred fifty-three.

## Class Work (Pg 39)

1. $42 \times 10000 = 420000$
2. $165 \times 100000 = 16500000$
3. $12 \times 2000 = 24000$
4. $14 \times 40000 = 560000$
5. $500 \times 30000 = 15000000$
6. $\underline{300} \times 90000 = 27000000$

## Class Work (Pg 41)

1.
$$\begin{array}{r} 478923 \\ \times\ 289 \\ \hline 4310307 \\ 3831384 \\ +\ 957846 \\ \hline 138408747 \end{array}$$

2.
$$\begin{array}{r} 6584 \\ \times\ 1034 \\ \hline 26336 \\ 19752 \\ 0000 \\ +\ 6584 \\ \hline 6807856 \end{array}$$

3.
$$\begin{array}{r} 5098 \\ \times\ 7040 \\ \hline 0000 \\ 20392 \\ 000000 \\ +\ 35686 \\ \hline 35889920 \end{array}$$

## Exercise 3B

1. (a) $845 \times 10 = 8450$
   (b) $9572 \times 100 = 957200$
   (c) $605 \times 1000 = 605000$
   (d) $987 \times 10000 = 9870000$
   (e) $549 \times 100000 = 54900000$
   (f) $237 \times 1000000 = 237000000$
   (g) $695 \times 30 = 20850$
   (h) $732 \times 900 = 658800$

2. (a)
$$\begin{array}{r} 99706 \\ \times\ 73 \\ \hline 299118 \\ +\ 697942 \\ \hline 7278538 \end{array}$$

(b)
$$\begin{array}{r} 69725 \\ \times\ 846 \\ \hline 418350 \\ 2789000 \\ +\ 557800 \\ \hline 58987350 \end{array}$$

(c)
$$\begin{array}{r} 596832 \\ \times\ 790 \\ \hline 0000000 \\ 5371488 \\ +\ 417824 \\ \hline 471497280 \end{array}$$

(d)
$$\begin{array}{r} 7851 \\ \times\ 6925 \\ \hline 39255 \\ 15702 \\ 7065 \\ +\ 47106 \\ \hline 54368175 \end{array}$$

(e)
$$\begin{array}{r} 391525 \\ \times\ 861 \\ \hline 391525 \\ 2349150 \\ +\ 3132200 \\ \hline 337103025 \end{array}$$

(f)
$$\begin{array}{r} 65839 \\ \times\ 6007 \\ \hline 460873 \\ 000000 \\ 00000 \\ +\ 395034 \\ \hline 395494873 \end{array}$$

(g)
$$\begin{array}{r} 47030 \\ \times\ 5600 \\ \hline 00000 \\ 00000 \\ 282180 \\ +\ 235150 \\ \hline 263368000 \end{array}$$

(h)
$$\begin{array}{r} 70095 \\ \times\ 950 \\ \hline 00000 \\ 35047 \\ +\ 630855 \\ \hline 66590250 \end{array}$$

**3.** Annual fee for 1 student = ₹136000

Total fee of 580 students =

$$\begin{array}{r} ₹\,1\,3\,6\,0\,0\,0 \\ \times\,5\,8\,0 \\ \hline 0\,0\,0\,0\,0\,0 \\ 1\,0\,8\,8\,0\,0\,0 \\ +\,6\,8\,0\,0\,0\,0 \\ \hline ₹\,7\,8\,8\,8\,0\,0\,0\,0 \end{array}$$

= ₹7,88,80,000

**4.** WhatsApp message sent in 1 day= 5665

WhatsApp messages sent in first 6 months (31 + 28 + 31 + 30 + 31 + 30) i.e., 181 days = 10,25,365 messages

$$\begin{array}{r} 5\,6\,6\,5 \\ \times\,1\,8\,1 \\ \hline 5\,6\,6\,5 \\ 4\,5\,3\,2\,0 \\ +\,5\,6\,6\,5 \\ \hline 1\,0\,2\,5\,3\,6\,5 \end{array}$$

**5.** Cost of 1 flat = ₹3990560

Cost of 430 flats =

$$\begin{array}{r} ₹\,3\,9\,9\,0\,5\,6\,0 \\ \times\,4\,3\,0 \\ \hline 0\,0\,0\,0\,0\,0\,0\,0 \\ 1\,1\,9\,7\,1\,6\,8\,0 \\ +\,1\,5\,9\,6\,2\,2\,4\,0 \\ \hline ₹\,1\,7\,1\,5\,9\,4\,0\,8\,0\,0 \end{array}$$

= ₹1,71,59,40,800

One hundredth of the total cost = ₹1,71,59,40,800 × $\frac{1}{100}$ = ₹1,71,59,408

**6.** (a) (378 × 999 = 3,77,622)

## Class Work (Pg 43)

**1.** 93895 ÷ 100 ⇒ Q = 938, R = 95

**2.** 415158 ÷ 10000 ⇒ Q = 41, R = 5158

**3.** 3245325 ÷ 1000 ⇒ Q = 3245, R = 325

**4.** 893425 ÷ 100000 ⇒ Q = 8, R = 93425

## Class Work (Pg 46)

**1.**

$$\begin{array}{r|l} & 2\,2\,5\,9 \\ \hline 23 & 5\,1\,9\,5\,8 \\ & -\,4\,6 \\ \hline & 5\,9 \\ & -\,4\,6 \\ \hline & 1\,3\,5 \\ & -\,1\,1\,5 \\ \hline & 2\,0\,8 \\ & -\,2\,0\,7 \\ \hline & 1 \end{array}$$

Quotient = 2259

Remainder = 1

**2.**

$$\begin{array}{r|l} & 5\,0\,2\,5 \\ \hline 312 & 1\,5\,6\,7\,8\,9\,2 \\ & -\,1\,5\,6\,0 \\ \hline & 7\,8\,9 \\ & -\,6\,2\,4 \\ \hline & 1\,6\,5\,2 \\ & -\,1\,5\,6\,0 \\ \hline & 9\,2 \end{array}$$

Quotient = 5025

Remainder = 92

**3.**

$$\begin{array}{r|l} & 5\,0\,0\,9 \\ \hline 937 & 4\,6\,9\,3\,4\,7\,5 \\ & -\,4\,6\,8\,5 \\ \hline & 8\,4\,7\,5 \\ & -\,8\,4\,3\,3 \\ \hline & 4\,2 \end{array}$$

Quotient = 5009

Remainder = 42

## Exercise 3C

**1.** (a) 2504 ÷ 1 = 2504 (b) 42679 ÷ 42679 = 1 (c) 0 ÷ 51090 = 0

**2.** (a)

```
        8 9 8
    ------------
16 ) 1 4 3 7 5
     - 1 2 8
     ---------
       1 5 7
     - 1 4 4
     ---------
         1 3 5
       - 1 2 8
       ---------
             7
```

Quotient = 898

Remainder = 7

(b)

```
        5 7
    ----------
648 ) 3 6 9 4 0
    - 3 2 4 0
    ---------
      4 5 4 0
    - 4 5 3 6
    ---------
            4
```

Quotient = 57

Remainder = 4

(c)

```
          7 9 8 2 8
      ---------------
99 ) 7 9 0 3 0 1 9
     - 6 9 3
     ---------
       9 7 3
     - 8 9 1
     ---------
         8 2 0
       - 7 9 2
       ---------
           2 8 1
         - 1 9 8
         ---------
             8 3 9
           - 7 9 2
           ---------
               4 7
```

Quotient = 79828

Remainder = 47

(d)

```
        7 7 0
    ----------
691 ) 5 3 2 6 4 1
    - 4 8 3 7
    ---------
      4 8 9 4
    - 4 8 3 7
    ---------
          5 7 1
```

Quotient = 770

Remainder = 571

(e)

```
          2 7 0 9 2
      ---------------
259 ) 7 0 1 7 0 7 1
     - 5 1 8
     ---------
       1 8 3 7
     - 1 8 1 3
     ---------
           2 4 0 7
         - 2 3 3 1
         ---------
               7 6 1
             - 5 1 8
             ---------
                 2 4 3
```

Quotient = 27092

Remainder = 243

(f)

```
          6 1 8 7
      ---------------
870 ) 5 3 8 2 6 9 5
     - 5 2 2 0
     ---------
       1 6 2 6
     -   8 7 0
     ---------
         7 5 6 9
       - 6 9 6 0
       ---------
           6 0 9 5
         - 6 0 9 0
         ---------
               5
```

Quotient = 6187

Remainder = 5

**3.** Total number of books = 1,66,660

Books in 1 shelf = 65

Number of shelves = 2564

1,66,660 ÷ 65 = 2564

```
        2 5 6 4
    ------------
65 ) 1, 6 6, 6 6 0
     - 1 3 0
     ---------
       3 6 6
     - 3 2 5
     ---------
         4 1 6
       - 3 9 0
       ---------
           2 6 0
         - 2 6 0
         ---------
                 ×
```

**4.** Cost of 86 refrigerators = ₹9,45,570

Cost of 1 refrigerator = ₹9,45,570 ÷ 86 = ₹10,995

```
        1 0 9 9 5
    ------------
86 ) 9, 4 5, 5 7 0
     - 8 6
     ---------
       8 5 5
     - 7 7 4
     ---------
         8 1 7
       - 7 7 4
       ---------
           4 3 0
         - 4 3 0
         ---------
                 ×
```

**5.** Number of bricks = $\frac{1}{2}$ million = 500,000

Bricks in 1 heap = 95

Number of heaps = 500,000 ÷ 95 = 5263 complete heaps and 15 bricks are leftover

```
        5263
   ┌──────
95 ) 500000
     -475
     ----
      250
     -190
     ----
       600
      -570
      ----
        300
       -285
       ----
         15
```

Quotient = 5263

Remainder = 15

**6.** Total words = 43,070

Words in 1 page = 118

Number of pages = 43,070 ÷ 118 = 365 pages

```
        365
   ┌──────
118 ) 43070
      -354
      ----
       767
      -708
      ----
       590
      -590
      ----
         ×
      ----
```

**7.** Total students = 11,676

Seats = 417

Film should be shown 11,676 ÷ 417 = 28 times

```
         28
   ┌──────
417 ) 11676
      -834
      ----
       3336
      -3336
      -----
          ×
      -----
```

**8.** 99999999 ÷ 999 ⇒ Quotient = 100100, Remainder = 99

**9.** (d) (412720 ÷ 385 = 1072)

**10.** (c) (10,04,416 ÷ 532 = 1888)

## Class Work (Pg 47)

**1.**
$$\begin{array}{rr} 148935 \rightarrow & 100000 \\ +\ 695121 \rightarrow & +\ 700000 \\ \hline & 800000 \end{array}$$

**2.**
$$\begin{array}{rr} 324218 \rightarrow & 320000 \\ -\ 63156 \rightarrow & -\ 60000 \\ \hline & 260000 \end{array}$$

**3.**
$$\begin{array}{rr} 570051 \rightarrow & 600000 \\ -\ 247845 \rightarrow & -\ 200000 \\ \hline & 400000 \end{array}$$

**4.**
$$\begin{array}{rr} 65356 \rightarrow & 65000 \\ 2916 \rightarrow & 3000 \\ +\ 25782 \rightarrow & +\ 26000 \\ \hline & 94000 \end{array}$$

**5.** (c) (2,00,000 − 1,00,000 = 1,00,000)

## Exercise 3D

1. (a) $23 \times 52 \rightarrow 20 \times 50 = 1000$
   (b) $7 \times 312 \rightarrow 7 \times 300 = 2100$
   (c) $62 \times 88 \rightarrow 60 \times 90 = 5400$
   (d) $731 \times 47 \rightarrow 700 \times 50 = 35000$

2. (a) $38 \rightarrow 40$, $\times 7 \rightarrow \times 7$, $280$
   (b) $45 \rightarrow 50$, $\times 67 \rightarrow \times 70$, $3500$
   (c) $225 \rightarrow 200$, $\times 8 \rightarrow \times 8$, $1600$
   (d) $62 \rightarrow 60$, $\times 78 \rightarrow \times 80$, $4800$

   (e) $26 \rightarrow 30$, $\times 725 \rightarrow \times 700$, $21000$
   (f) $602 \rightarrow 600$, $\times 145 \rightarrow \times 100$, $60000$

3. (c) (1,00,000 × 10 = 1,000,000 = 1 million)

## Class Work (Pg 49)

1. (a) $4\overline{)331} \rightarrow 4\overline{)320}$, $80$, $-320$, $\times$
   (b) $46\overline{)487} \rightarrow 50\overline{)500}$, $10$, $-500$, $\times$
   (c) $44\overline{)1571} \rightarrow 40\overline{)1600}$, $40$, $-1600$, $\times$
   (d) $65\overline{)2218} \rightarrow 70\overline{)2100}$, $30$, $-2100$, $\times$

2. (a) $7\overline{)283} \rightarrow 7\overline{)280}$, $40$, $-280$, $\times$
   (b) $6\overline{)314} \rightarrow 6\overline{)300}$, $50$, $-300$, $\times$
   (c) $7\overline{)6217} \rightarrow 7\overline{)6300}$, $900$, $-6300$, $\times$
   (d) $85\overline{)7242} \rightarrow 90\overline{)7200}$, $80$, $-7200$, $\times$

## Mental Maths

1. Adding 5015 + 250 = 5265 ÷ 9 = 585
2. Product of 3,200 × 20 = 64,000
3. 6500 ÷ 13 = 500
4. 60 + 60 = 120
5. Product = 80,000 × 900 = 72000000
   Indian System = 7,20,00,000 = Seven crore twenty lakh
   International System = 72,000,000 = Seventy-two million
6. 3667 ÷ 6 gives remainder 1
7. Number of sacks required = 2800 kg ÷ 70 kg = 40 sacks
8. 21000 ÷ 70 (successor of 69) = 300

## Chapter Test

1. 5,76,83,104 + 1200 = 5,76,84,304

2. Mr Agarwal has ₹1,50,000
   Cost of 65 mango saplings = ₹2457 × 65 = ₹1,59,705
   No, he needs ₹1,59,705 − ₹1,50,000 = ₹9,705 more

3. Dividend = 63 × 857 + 27 = 54018

4. (a) 31406 + 19756 → 30000 + 20000 = 50000 ∴ 50000 > 40000
   (b) 104993 − 72813 = 100000 − 70000 = 30000 ∴ 30000 < 50000
   (c) 496 × 612 → 500 × 600 = 300000, ∴ 300000 > 20000
   (d) 82917 ÷ 12 → 80000 ÷ 10 < 10000

5. (c) (Total land area = 98,26,675 km² + 95,96,961 km² + 32,87,263 km² = 2,27,10,899 km²)

6. (c)

7. (d) (Total cost = ₹34,59,640 × 40 = ₹13,83,85,600)

8. (b) (50 × 50000 = 25,00,000 = Twenty-five lakh)

9. (b) (5,00,00,000 − 49,000,000 = 1,000,000 = 1 million)

10. Total fund = ₹12,16,000
    Orphanages = 8
    One orphanage receives ₹12,16,000 ÷ 8 = ₹1,52,000
    value → Helping the needy.

```
   2457
  ×  65
  12285
+14742
  159705
```

```
      152000
8 ) 1216000
    - 8
      41
    - 40
       16
     - 16
        ×
```

## Challenge!

Total seats in a theatre = 1600

Seats in 5 rows = 20 × 5 = 100

Remaining seats = 1600 − 100 = 1500. Remaining rows = 65 − 5 = 60

Number of seats in remaining rows = 1500 ÷ 60 = 25 seats

## Worksheet

1.
```
  96987350 (I)
- 65400988
  31586362
```

2.
```
   28369 (Y)
  ×  407
  198583
 0000000
 113476
11546183
```

3.
```
   58390874 (M)
+ 26429586
  84820460
```

4.
```
          9007 (L)
8402 ) 75676814
     - 75618
       58814
     - 58814
       ×
```

5.
```
   70610 (K)
  ×  5098
  564880
 6354900
 0000000
+3530500
 359969780
```

6.
```
   642400000 (W)
- 52882407
  113575 93
```

7. $800 \times 30000 = 24000000$ (Y)

8.
$$
\begin{array}{r}
\quad\quad\quad\quad 7\,4\,4\,7 \text{ (A)} \\
9583\overline{)\ 7\,1\,3\,6\,4\,6\,0\,1} \\
\quad -6\,7\,0\,8\,1 \\
\hline
\quad\quad 4\,2\,8\,3\,6 \\
\quad -3\,8\,3\,3\,2 \\
\hline
\quad\quad 4\,5\,0\,4\,0 \\
\quad -3\,8\,3\,3\,2 \\
\hline
\quad\quad 6\,7\,0\,8\,1 \\
\quad -6\,7\,0\,8\,1 \\
\hline
\quad\quad\quad\quad\quad 0
\end{array}
$$

Name of Galaxy
= MILKY WAY