

# Answers

## Theme 1: What Makes Our Land Lesson-1: Understanding Large Numbers

### Main Coursebook

#### I am ready

- 204679      2. 976240      3. 976420
- a. 976420      b. 204679      c. 771741
- a. 99,87,509 – Ninety-nine lakh eighty-seven thousand five hundred nine  
b. 3,41,82,117 – Three crore forty-one lakh eighty-two thousand one hundred seventeen  
c. 8,79,61,534 – Eight crore seventy-nine lakh sixty-one thousand five hundred thirty-four  
d. 8,95,33,482 – Eight crore ninety-five lakh thirty-three thousand four hundred eighty-two
- a. 52,00,300      b. 1,87,00,009  
c. 7,11,002      d. 70,01,005

#### Catch Up (Page 4)

- 99,99,999      2. 1,00,00,000
- a.  $30,00,000 + 4,00,000 + 20,000 + 6,000 + 100 + 0 + 6$   
b.  $80,00,00,000 + 1,00,00,000 + 0 + 2,00,000 + 50,000 + 0 + 700 + 30 + 2$   
c.  $70,00,000 + 5,00,000 + 80,000 + 1,000 + 300 + 0 + 0$   
d.  $20,00,000 + 3,00,000 + 0 + 9,000 + 400 + 60 + 8$   
e.  $50,00,000 + 0 + 0 + 2,000 + 600 + 10 + 1$
- a. 35,036      b. 2,00,41,506  
c. 34,84,000

	Number	Successor	Predecessor
a.	5,00,823	<b>5,00,824</b>	<b>5,00,822</b>
b.	2,29,69,199	<b>2,29,69,200</b>	<b>2,29,69,198</b>

- a. >      b. >      c. >      d. =
- $3,44,568$  (E) <  $4,18,56,784$  (E) <  $6,49,08,401$  (O) <  $29,87,12,345$  (O)
- $29,27,22,416$  (E) <  $4,92,34,240$  (E) <  $3,28,61,237$  (O) <  $23,44,568$  (E)
- 1,000,001
- a. 18,000,000      b. 76,005,002  
c. 8,357,248
- a. Fifty-eight million one hundred twenty-three thousand seven hundred twenty-six  
b. Twenty-nine million seven hundred seventeen thousand two hundred twenty-two  
c. Forty-nine million one hundred eleven thousand two hundred eight

- d. Nine hundred ninety-nine thousand nine hundred twenty-one

#### Catch Up (Page 7)

- No
- No
- 

Numbers	Indian system	Number names
45393738	4,53,93,738	Four crore fifty-three lakh ninety-three thousand seven hundred thirty-eight
98124670	9,81,24,670	Nine crore eighty-one lakh twenty-four thousand six hundred seventy
92663212	9,26,63,212	Nine crore twenty-six lakh sixty-three thousand two hundred twelve
82006210	8,20,06,210	Eight crore twenty lakh six thousand two hundred ten

Numbers	International system	Number names
45393738	45,393,738	Forty-five million three hundred ninety-three thousand seven hundred thirty-eight
98124670	98,124,670	Ninety-eight million one hundred twenty-four thousand six hundred seventy
92663212	92,663,212	Ninety-two million six hundred sixty-three thousand two hundred twelve
82006210	82,006,210	Eighty-two million six thousand two hundred ten

- a. 4,140      b. 7,680      c. 5,320
- a. 6,200      b. 6,100      c. 3,800
- a. 5,000      b. 25,000      c. 79,000
- a. XI      b. LXXVIII      c. CXLVI  
d. CCVII      e. CCCXLV      f. DLXXXIX
- a. 15      b. 93      c. 84      d. 255  
e. 311      f. 461

#### Mental Maths

- 10
- 20,00,006
- 1,00,00,000
- 9,76,700; 9,77,000
- 410
- 50,000

#### I am a learner

- b      2. b      3. c      4. a      5. a
1. 3,47,790      7,000  
2. 964,815      900,000  
3. 6,00,488      8  
4. 733,901      30,000
1. <      2. >      3. >      4. >
1.  $26,28,673 < 35,28,829 < 38,49,873 < 72,73,786$   
2.  $93,40,374 < 2,74,34,837 < 4,93,77,344 < 8,67,47,545$

3.  $5,63,82,834 < 6,38,36,386 < 7,52,78,673 < 7,64,37,623$
- E. 1.  $83,72,881 > 78,27,321 > 73,23,882 > 67,32,901$
2.  $5,94,59,344 > 3,04,84,038 > 84,04,347 > 78,49,394$
3.  $8,63,63,836 > 4,67,73,263 > 3,65,28,384 > 2,57,87,763$
- F. The palindrome numbers between 50,00,000 and 51,00,000 are 50,00,005, 50,01,005, 50,02,005, 50,03,005, 50,04,005, 50,05,005, 50,06,005, 50,07,005, 50,08,005, 50,09,005, 50,10,105, 50,11,105, 50,12,105, 50,13,105, 50,14,105, 50,15,105, 50,16,105, 50,17,105, 50,18,105, 50,19,105, 50,20,205, 50,21,205, 50,22,205, 50,23,205, 50,24,205, 50,25,205, 50,26,205, 50,27,205, 50,28,205, 50,29,205, 50,30,305, 50,31,305, 50,32,305, 50,33,305, 50,34,305, 50,35,305, 50,36,305, 50,37,305, 50,38,305, 50,39,305, 50,40,405, 50,41,405, 50,42,405, 50,43,405, 50,44,405, 50,45,405, 50,46,405, 50,47,405, 50,48,405, 50,49,405, 50,50,505, 50,51,505, 50,52,505, 50,53,505, 50,54,505, 50,55,505, 50,56,505, 50,57,505, 50,58,505, 50,59,505, 50,60,605, 50,61,605, 50,62,605, 50,63,605, 50,64,605, 50,65,605, 50,66,605, 50,67,605, 50,68,605, 50,69,605, 50,70,705, 50,71,705, 50,72,705, 50,73,705, 50,74,705, 50,75,705, 50,76,705, 50,77,705, 50,78,705, 50,79,705, 50,80,805, 50,81,805, 50,82,805, 50,83,805, 50,84,805, 50,85,805, 50,86,805, 50,87,805, 50,88,805, 50,89,805, 50,90,905, 50,91,905, 50,92,905, 50,93,905, 50,94,905, 50,95,905, 50,96,905, 50,97,905, 50,98,905, 50,99,905

G.

	Number	Nearest 10	Nearest 100	Nearest 1000
1.	35,82,917	<u>35,82,920</u>	<u>35,82,900</u>	<u>35,83,000</u>
2.	2,33,67,433	<u>2,33,67,430</u>	<u>2,33,67,400</u>	<u>2,33,67,000</u>
3.	8,92,53,549	<u>8,92,53,550</u>	<u>8,92,53,500</u>	<u>8,92,54,000</u>

- H. 1. LXXXVII; 87      2. CXCIII; 193  
 3. CX; 110      4. XLI; 41  
 5. DCCCLXXX; 880      6. LXVI; 66

**I am an artist:** Try yourself

**My Secret Journal:** Try yourself

**I am a thinker:**

1.  $4,25,680 < 4,87,250 < 5,03,940$   
 2.  $5,03,940 - 4,25,680 = 78,260$  kg

**I am an all-rounder**

A. **English:**

1. Subject (S): The largest 4-digit number  
 Predicate (P): is 9,999
2. Subject (S): This number chart  
 Predicate (P): shows numbers up to 10,000

B. **Science:**

1. Friction      2. A force can:
- Change the shape of an object.
  - Change the speed or direction of an object.

C. **Social Science:** Although mountains cover a large area, plains have a much larger population because they have flat land, fertile soil, better transport, and easier living conditions, while mountains have steep land, harsh climate, and fewer resources.

## Students' Worksheets

### Worksheet 1

- A. 1. 94,219,071 – Ninety-four million two hundred nineteen thousand seventy-one  
 2. 82,350,925 – Eighty-two million three hundred fifty thousand nine hundred twenty-five  
 3. 39,232,510 – Thirty-nine million two hundred thirty-two thousand five hundred ten  
 4. 55,527,993 – Fifty-five million five hundred twenty-seven thousand nine hundred ninety-three  
 5. 14,705,234 – Fourteen million seven hundred five thousand two hundred thirty-four
- B. 1. 100      2. 98,500      3. 0  
 4. 2,00,034      5. 5,00,00,403
- C. 1. LXXII      2. CXVII      3. CCXXXVIII  
 4. DXIV      5. CML

### Worksheet 2

- A. 1. 4,76,39,602      47,639,602  
 2. 8,29,66,450      82,966,450  
 3. 6,40,11,509      64,011,509  
 4. 5,79,15,602      57,915,602  
 5. 3,87,47,819      38,747,819

B.

	Numbers	Successor	Predecessor
1.	41,52,625	<u>41,52,626</u>	<u>41,52,624</u>
2.	37,48,280	<u>37,48,281</u>	<u>37,48,279</u>
3.	2,73,48,312	<u>2,73,48,313</u>	<u>2,73,48,311</u>
4.	5,27,18,072	<u>5,27,18,073</u>	<u>5,27,18,071</u>
5.	7,16,97,840	<u>7,16,97,841</u>	<u>7,16,97,839</u>

- C. 1. False    2. True    3. True    4. False    5. True

### Worksheet 3

- A. 1. Twenty-four lakh thirty-two thousand eight hundred seventy-five  
 2. Sixty-seven lakh ninety-nine thousand eight hundred eighty-five

3. Four crore fifty-nine lakh seventy-five thousand eight hundred thirty
4. Five crore thirty-one lakh twenty-seven thousand five hundred twenty-six
5. Seventy-four crore four lakh eight hundred twelve

- B.
- |         |      |
|---------|------|
| 1. 8750 | 5078 |
| 2. 9841 | 1489 |
| 3. 7632 | 2367 |
| 4. 8740 | 4078 |
| 5. 9531 | 1359 |

C.

	Numbers	Nearest 10	Nearest 100
1.	4,135	4,140	4,100
2.	21,543	21,540	21,500
3.	7,00,171	7,00,170	7,00,200
4.	92,65,783	92,65,780	92,65,800
5.	1,37,22,505	1,37,22,510	1,37,22,500

#### Worksheet 4

- A.
1. Ninety-nine million eight hundred one thousand three hundred sixty-seven
  2. Seventy-six million thirty-one thousand six hundred fifty-four
  3. Thirty-eight million two hundred thirteen thousand eight hundred seventy-nine
  4. Sixty-six million seven hundred ninety-five thousand thirty-five
  5. Twenty-eight million six hundred twenty-two thousand one hundred thirteen

- B.
1. The expanded form of 8,06,452 is  $8,00,000 + 6,000 + 400 + 50 + 2$ .
  2. The greatest 7-digit number is 99,99,999 and its predecessor is 99,99,998.
  3. The digit 9 in the lakhs place has a value of 9,00,000.
  4. The number name of 7,05,080 is "seven lakh five thousand eighty."
  5. Counting backwards from 10,00,000 gives the first number as 9,99,999.
- C. 1. 458    2. 84    3. 312    4. 92    5. 265

### Teacher's Worksheets

#### Worksheet 1

- A.
1. Greatest possible number – 986510; Smallest possible number - 105689
  2.  $43869851 > 43680851 > 43679851$
  3. Eighty-three lakhs forty thousand three hundred ninety-two
  4.  $300000 + 50000 + 9000 + 800 + 0 + 7$
  5. 79,620,356 - Seventy-nine million six hundred twenty thousand three hundred fifty-six
- B.
1. 9,24,00,000    2. 10,00,000    3. 9,99,99,850
  4. 48,10,999    5. 1,00,00,001
- C.
1. 27    2. 61    3. 259    4. 438

#### Worksheet 2

- A.
1.  $>$     2.  $>$     3.  $<$     4.  $>$
- B.
1. 150    2. 120    3. 130
- C.
1. 8600    2. 9400    3. 3200    4. 12,700
- D.
1. 9000    2. 29,000    3. 66,000    4. 5,13,000

# Answers

## Theme 1: What Makes Our Land Lesson-2: Working with Large Numbers

### Main Coursebook

#### I am ready

1. 617 km                      2. ₹35,801
3. ₹14,199 remained (no extra money needed)
1. a. 38,56,535    b. 61,82,135    c. 77,29,572
2. a. 64,45,221    b. 47,12,551    c. 81,90,719
3. Sum – 1,09,99,999  
Difference – 89,99,999

#### Catch Up (Page 17)

1. No                              2. No
4. a. 1,39,275 tickets    b. 2,59,08,466  
c. ₹1,42,76,001    d. 6,45,565
5. a. 2,38,67,368    b. 1,01,71,469  
c. 7,83,99,204
6. a. Q = 23,125    R = 15    b. Q = 8,480    R = 10  
c. Q = 6,220    R = 27
7. a. ₹900,000                      b. 180 saplings
8. a. 41,15,995                      b. 4,88,69,514  
c. 236                              d. 35,06,305  
e. 61,26,325

#### Catch Up (Page 21)

1. 750                              2. 175
9. a. 10                      b. 82                      c. 292                      d. 0

#### Mental Maths

- a. >                      b. =                      c. <                      d. <
- e. <                      f. >

#### I am a learner

1. b                      2. b                      3. a                      4. b                      5. d
1. False    2. False    3. True    4. False    5. False
1. 1,65,53,779    2. 7,61,06,356    3. 6,82,087  
4. 92,52,181    5. 9,79,75,455    6. 2,12,040
1. 29,72,88,324                      2. 12,18,76,887  
3. 25,66,63,890

1. Q = 2,30,912; R = 15
  2. Q = 7,69,171; R = 81
  3. Q = 1,20,448; R = 202
1. 2,35,28,002 females
  2. 6,79,41,205                      3. 7,52,50,116
  4. 7,486                              5. 5,47,259
1. 21                      2. 11                      3. 20

**I am an artist:** Try yourself

**My Secret Journal:** Try yourself

**I am a doer:** Accept all relevant responses.

#### I am an all-rounder

##### A. English –

1. Subject – Naveen; Object - the multiplication tables
2. Subject - I; Object - multiplication word problems.

##### B. Science –

- Samples of each type = 4
- Rock formed by cooling of magma or lava: Igneous rock
- It is important to conserve natural resources because they are limited and are needed for future generations.

**C. Social Studies –** Accept all relevant responses.

### Students' Worksheets

#### Worksheet 1

1. → c    2. → e    3. → b    4. → a    5. → d
1. 7,78,05,251    2. 9,05,29,252    3. 7,13,23,680  
4. 7,13,23,680    5. 4,98,01,534
1. 0                              2. 5,65,42,300  
3. 8,23,59,621    4. 1                              5. 3,43,86,008

#### Worksheet 2

1. subtrahend    2. successor    3. multiplier  
4. Division    5. predecessor
1. 3,67,86,386    2. 7,54,81,568    3. 6,69,67,092  
4. 8,86,18,077    5. 4,44,51,921
1. True    2. False    3. False    4. False    5. False

#### Worksheet 3

1. 0                              2. 1                              3. 1  
4. 1                              5. 8,49,22,897
1. 4,67,98,033    2. 6,22,66,095    3. 94,12,501  
4. 2,34,25,332    5. 26,395

C.

	÷	34,41,084	2,14,92,625	9,25,75,570	1,70,36,239
1.	6	Q = 5,73,514; R = 0	Q = 35,82,104; R = 1	Q = 1,54,29,261; R = 4	Q = 28,39,373; R = 1
2.	25	Q = 137,643; R = 9	Q = 8,59,705; R = 0	Q = 37,03,022; R = 20	Q = 6,81,449; R = 14
3.	34	Q = 1,01,208; R = 12	Q = 6,32,136; R = 1	Q = 27,22,810; R = 30	Q = 5,01,065; R = 29
4.	50	Q = 68,821; R = 34	Q = 4,29,852; R = 25	Q = 18,51,511; R = 20	Q = 3,40,724; R = 39
5.	87	Q = 39,552; R = 60	Q = 2,47,041; R = 58	Q = 10,64,087; R = 1	Q = 1,95,818; R = 73

### Worksheet 4

- A. 1. When adding 7,48,926 and 2,56,479, the sum is 10,05,405.  
 2.  $4,875 \times 100 = 4,87,500$   
 3. The numbers 9,85,432; 9,95,321; 9,89,245 are arranged in descending order as: 9,95,321; 9,89,245; 9,85,432.  
 4. The estimated difference between 8,76,245 and 4,29,872 to the nearest thousand is 4,46,000.  
 5. If  $3,45,672 \div 24 = 14,403$ , then  $14,403 \times 24 = 3,45,672$ .
- B. 1. 21,37,512    2. 79,91,865    3. 3,15,89,810  
 4. 67,77,530    5. 1,83,79,176
- C. 1. 43,45,251    2. 43,256    3. 37,08,054  
 4. 1,27,34,565    5. 0

## Teacher's Worksheets

### Worksheet 1

- A. 1. 9100    2. 100    3. 0    4. 38415

B. 1.

$$\begin{array}{r} 7 \quad 2 \quad 3 \quad 4 \quad 7 \quad 8 \\ - \quad 4 \quad 2 \quad 3 \quad 2 \quad 4 \quad 3 \\ \hline 3 \quad 0 \quad 0 \quad 2 \quad 3 \quad 5 \end{array}$$

2.

$$\begin{array}{r} 7 \quad 5 \quad 4 \quad 2 \quad 4 \quad 7 \\ - \quad 4 \quad 3 \quad 2 \quad 0 \quad 0 \quad 7 \\ \hline 3 \quad 2 \quad 2 \quad 2 \quad 4 \quad 0 \end{array}$$

3.

$$\begin{array}{r} 9 \quad 3 \quad 4 \quad 6 \quad 5 \quad 5 \\ + \quad 0 \quad 5 \quad 3 \quad 3 \quad 1 \quad 0 \\ \hline 9 \quad 8 \quad 7 \quad 9 \quad 6 \quad 5 \end{array}$$

4.

$$\begin{array}{r} 5 \quad 9 \quad 5 \quad 5 \quad 3 \quad 3 \\ + \quad 2 \quad 0 \quad 2 \quad 3 \quad 6 \quad 5 \\ \hline 7 \quad 9 \quad 7 \quad 8 \quad 9 \quad 8 \end{array}$$

- C. 1. ₹4,51,125    2. ₹8,433; ₹28,122

### Worksheet 2

- A. 1. 27    2. 37    3. 40    4. 0  
 B. 1. 19    2. 7    3. 34    4. 2  
 C. 1. 3,92,700 apples    2. ₹17,13,985  
 3. ₹2,48,39,000    4. ₹1,99,980  
 5. ₹20,86,000

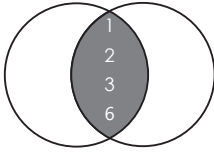
# Answers

## Theme 2: What Helps Us Survive Lesson 3: Factors and Multiples

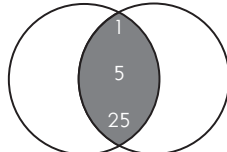
### Main Coursebook

#### I am ready

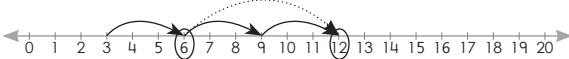
1. a.



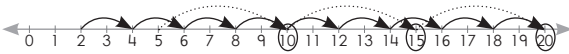
b.



2. a. First two common multiples: 6 and 12



b. First two common multiples: 10 and 20



#### Catch Up (Page 27)

1. false      2. true      3. false
1. a. 1, 3, 5, 15    b. 1, 2, 3, 5, 6, 10, 15, 30  
c. 1, 2, 4, 5, 8, 10, 20, 40  
d. 1, 5, 11, 55    e. 1, 2, 4, 5, 10, 20, 25, 50, 100  
f. 1, 5, 25, 125
2. a. 6, 12, 18, 24, 30    b. 12, 24, 36, 48, 60  
c. 15, 30, 45, 60, 75    d. 17, 34, 51, 68, 85  
e. 25, 50, 75, 100, 125    f. 30, 60, 90, 120, 150

Number	2	3	4	5	6	8	9	10	11	12	15
2,625	x	✓	x	✓	x	x	x	x	x	x	✓
2,121	x	✓	x	x	x	x	x	x	x	x	x
18,018	✓	✓	x	x	✓	x	✓	x	✓	x	x
36,000	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓
1,00,406	✓	x	x	x	x	x	x	x	x	x	x

4. a. false    b. false    c. true    d. true

#### Catch Up (Page 30)

1. false      2. false      3. true
- 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97
- 29, 31 and 71, 73 are twin primes.
- a.  $2 \times 31$                       b.  $7 \times 13$   
c.  $2 \times 2 \times 3 \times 3 \times 3$     d.  $2 \times 2 \times 2 \times 2 \times 3 \times 3$   
e.  $13 \times 13$
- a.  $2 \times 2 \times 2 \times 2 \times 3$     b.  $3 \times 3 \times 7$   
c.  $3 \times 29$                       d.  $2 \times 2 \times 2 \times 3 \times 5$   
e.  $2 \times 2 \times 47$
- a. 13      b. 18      c. 1      d. 8
- a. 7      b. 21      c. 5      d. 25
- a. 56      b. 60      c. 36      d. 192
- a. 225      b. 63      c. 6930    d. 2160

#### Catch Up (Page 35)

1. true                              2. true
13. a. 15 litres                      b. 300  
c. 20th day                      d. 135

#### Mental Maths

	Number 1	Number 2	HCF	LCM	Product of the numbers	Product of HCF and LCM
a.	12	40	4	120	480	480
b.	15	45	15	45	675	675
c.	35	105	35	105	3675	3675
d.	48	84	12	336	4032	4032
e.	66	99	33	198	6534	6534

#### I am a learner

1. b      2. c      3. d      4. d      5. a
1. 1, 2, 5 and 10      2. 1, 6 and 12  
3. 3                      4. 20                      5. 1 and 5
1. 5      2. 7      3. 6      4. 7  
5. 5      6. 48
1. 5 litres                      2. 40

**I am an artist:** 30, 60, 90; LCM = 30

**My Secret Journal:** Accept all relevant responses.

**I am a thinker:** 106 marbles

#### I am an all-rounder

- English** – Collective noun: team  
Abstract noun: confidence  
Collective noun: class  
Abstract noun: attention
- Science** – 560 flats
- Social Studies** – 10:00 pm

### Students' Worksheets

#### Worksheet 1

1. false    2. true    3. true    4. false    5. false
1. 1, 3, 5, 15      2. 1, 5, 25  
3. 1, 2, 3, 5, 6, 10, 15, 30  
4. 1, 3, 17, 51      5. 1, 5, 13, 65
1. 8, 16, 24, 32, 40    4. 12, 24, 36, 48, 60  
3. 30, 60, 90, 120, 150  
4. 50, 100, 150, 200, 250  
5. 70, 140, 210, 280, 350

#### Worksheet 2

1. false    2. true    3. false    4. true    5. true
1. yes    2. yes    3. no    4. no    5. no
1. 1, 2, 11, 22      2. 1, 3, 9, 27  
3. 1, 2, 4, 5, 8, 10, 20, 40  
4. 1, 5, 17, 85  
5. 1, 2, 3, 4, 6, 12, 13, 26, 39, 52, 78, 156

#### Worksheet 3

1. false    2. true    3. true    4. true    5. false

- B. 1. itself      2. 1      3. 1  
 4. 2      5. odd
- C. 1.  $2 \times 3 \times 5$       2. 19, 38, 57  
 3. 7, 21, 35, 49, 63      4. 11, 31, 41, 61, 71  
 5. 5 and 15

#### Worksheet 4

- A. 1. even      2. 3 and 5      3. 2 and 3  
 4. factor      5. 0, 4
- B. 1. 20 is not a common factor of 45 and 60 because  $45 \div 20$  is not an integer.  
 2. Every multiple of 8 is a multiple of 4 but not necessarily of 3.  
 3. The LCM of 6 and 9 is 18.  
 4. 1 has only one factor (itself).  
 5. 24 is not a multiple of 5, so it cannot be a multiple of both.
- C. Sample answer:  
 1.  $2 \times 2 \times 2 \times 3$ ; Only 1 way  
 2.  $2 \times 3 \times 5$ ; Only 1 way

3.  $7 \times 5$ ; Only 1 way  
 4.  $3 \times 3 \times 5$ ; Only 1 way  
 5.  $2 \times 2 \times 2 \times 2 \times 5$ ; Only 1 way

### Teacher's Worksheets

#### Worksheet 1

- A. 1. 40      2. 1      3. 12      4. 27  
 B. 1.  $2 \times 2 \times 3$       2.  $3 \times 3 \times 3$   
 C. 1. 4      2. 2      3. 5      4. 2

#### Worksheet 2

- A. 1. 260      2. 450, 138      3. 513, 900

B.

12	1	2	<b>3</b>	4	<b>6</b>	12	-	-
18	1	<b>2</b>	3	<b>6</b>	<b>9</b>	<b>18</b>	-	-
30	1	2	<b>3</b>	5	<b>6</b>	<b>10</b>	15	<b>30</b>
40	1	<b>2</b>	4	5	<b>8</b>	<b>10</b>	<b>20</b>	40
63	<b>1</b>	3	<b>7</b>	<b>9</b>	<b>21</b>	63	-	-

- C. 1. 5      2. 36

# Answers

## Theme 3: Different Yet Alike Lesson 4: All About Fractions

### Main Coursebook

#### I am ready

- a. 1. 2      2. 3      3. 3      4. 2

#### Catch Up (Page 41)

1. No                      2. Yes

1. b. 1                      c. 6                      d. 2

2. a. Yes      b. No      c. Yes      d. Yes

3. a.  $\frac{5}{6}$       b.  $\frac{1}{3}$       c.  $\frac{8}{5}$       d.  $\frac{11}{13}$       e.  $\frac{28}{65}$

4. a.  $\frac{2}{7}$       b.  $\frac{3}{5}$       c.  $\frac{1}{3}$       d.  $\frac{5}{2}$       e.  $\frac{2}{5}$

5. a. <      b. >      c. <      d. <

6. a.  $\frac{4}{15} < \frac{4}{13} < \frac{4}{11} < \frac{4}{9}$       b.  $\frac{1}{2} < \frac{6}{11} < \frac{2}{3} < \frac{4}{5}$

c.  $\frac{6}{10} < \frac{4}{6} < \frac{4}{5} < \frac{6}{7}$

7. a.  $\frac{8}{5} > \frac{8}{7} > \frac{8}{10} > \frac{8}{11}$       b.  $\frac{5}{4} > \frac{6}{5} > \frac{12}{20} > \frac{1}{2}$

c.  $\frac{14}{14} < \frac{11}{14} < \frac{17}{28} < \frac{4}{7}$

8. a.  $\frac{11}{9}$       b.  $\frac{67}{40}$       c.  $\frac{83}{12}$       d.  $\frac{91}{18}$

9. a.  $\frac{3}{5}$  km      b.  $\frac{9}{10}$       c.  $4\frac{23}{54}$  km

#### Catch Up (Page 30)

- Fractions with the same denominator are called like fractions.
- Fractions with different denominators are called unlike fractions.

10. a.  $\frac{11}{19}$       b.  $\frac{1}{42}$       c.  $\frac{7}{3}$       d.  $8\frac{74}{80}$

11. a.  $\frac{31}{35}$       b.  $14\frac{1}{4}$  kg      c.  $\frac{6}{11}$

12. a.  $\frac{2}{3}$       b.  $\frac{3}{2}$       c.  $\frac{7}{2}$       d.  $\frac{1}{2}$       e.  $\frac{72}{25}$

13. a. 50 L      b.  $2(\frac{2}{5})$  m      c.  $\frac{1}{2}$  m

14. a.  $\frac{1}{6}$       b.  $\frac{5}{2}$       c.  $\frac{8}{7}$       d.  $\frac{10}{9}$       e.  $\frac{31}{29}$

15. a. 20      b.  $\frac{27}{32}$       c.  $\frac{3}{35}$       d.  $\frac{1}{4}$       e.  $\frac{27}{4}$

#### Catch Up (Page 50)

1.  $\frac{1}{25}$

2.  $\frac{8}{9}$

16. a. 21 cakes

b. 6 badges

c. 57

#### Mental Maths

1. a. 10      b. 6      c. 6      d. 8

2. a.  $\frac{3}{4}$       b.  $\frac{2}{4}$       c. 5      d. 10

#### I am a learner

A. 1. d      2. b      3. a      4. c      5. a

B. 1. → c      2. → d      3. → a      4. → e      5. → b

C. 1.  $\frac{3}{4}$       2.  $\frac{3}{4}$       3.  $\frac{14}{15}$       4.  $\frac{29}{48}$       5.  $\frac{609}{1000}$

D. 1. <      2. >      3. >      4. <

E. 1.  $\frac{7}{28} < \frac{7}{25} < \frac{7}{20} < \frac{7}{18}$       2.  $\frac{1}{3} < \frac{3}{6} < \frac{14}{24} < \frac{8}{12}$

3.  $\frac{10}{20} < \frac{3}{5} < \frac{7}{10} < \frac{4}{5}$

F. 1.  $\frac{52}{60}$       2.  $4\frac{19}{35}$       3.  $\frac{10}{36}$       4.  $1\frac{7}{25}$

5. 14      6.  $\frac{1}{8}$       7.  $\frac{1}{12}$       8.  $\frac{44}{9}$

G. 1.  $3(\frac{5}{6})$  km

2.  $\frac{1}{40}$  litres

3. 20 metres

4.  $\frac{13}{5}$  pieces

#### I am an artist: Try yourself

#### My Secret Journal: Try yourself

#### I am a doer:

- a. use some of it to help someone in need

#### I am an all-rounder

##### A. English –

- Rashi will be shading equal parts in the figures.
- Gautam arranged fractions in ascending and descending order.

##### B. Science – Do it yourself

##### C. Social Studies – Do it yourself

### Students' Worksheets

#### Worksheet 1

A. 1.  $\frac{1}{7}$                       2.  $\frac{5}{7}$                       3.  $\frac{3}{5}$

4. multiplicative inverse      5. unit fraction

B.

	Figure	Total number of equal parts	Number of shaded parts	Fraction of unshaded parts
1.		5	3	$\frac{2}{5}$
2.		6	2	$\frac{4}{6}$
3.		6	3	$\frac{3}{6}$
4.		3	1	$\frac{2}{3}$
5.		9	4	$\frac{5}{9}$

C. 1. > 2. > 3. = 4. < 5. >

### Worksheet 2

A. 1. → c 2. → d 3. → a 4. → e 5. → b

B. 1.  $\frac{6}{17}$  2.  $\frac{7}{15}$  3.  $\frac{8}{9}$  4.  $\frac{4}{5}$  5.  $\frac{3}{5}$

C.

	Multiply the numerator and denominator by					
	4	7	9	11	15	
1.	$\frac{2}{6}$	$\frac{8}{24}$	$\frac{14}{42}$	$\frac{18}{54}$	$\frac{22}{66}$	$\frac{30}{90}$
2.	$\frac{5}{8}$	$\frac{20}{32}$	$\frac{35}{56}$	$\frac{45}{72}$	$\frac{55}{88}$	$\frac{75}{120}$
3.	$\frac{1}{7}$	$\frac{4}{28}$	$\frac{7}{49}$	$\frac{9}{63}$	$\frac{11}{77}$	$\frac{15}{105}$
4.	$\frac{4}{13}$	$\frac{16}{52}$	$\frac{28}{91}$	$\frac{36}{117}$	$\frac{44}{143}$	$\frac{60}{195}$
5.	$\frac{16}{9}$	$\frac{64}{36}$	$\frac{112}{63}$	$\frac{144}{81}$	$\frac{176}{99}$	$\frac{240}{135}$

### Worksheet 3

A. 1. b 2. a 3. c 4. d 5. b

B. 1.  $\frac{48}{64}$  2.  $\frac{48}{84}$  3.  $\frac{48}{78}$  4.  $\frac{48}{96}$  5.  $\frac{48}{50}$

C. 1.  $\frac{6}{3}$  2.  $\frac{8}{5}$  3. 7 4.  $\frac{9}{8}$  5.  $\frac{11}{10}$

### Worksheet 4

A. 1.  $\frac{3}{5} + \frac{7}{10} = \frac{13}{10}$

2.  $\frac{16}{5} - \frac{6}{5} - \frac{8}{5} = \frac{2}{5}$

3.  $\frac{4}{6}$  is less than  $\frac{8}{4}$

4. The simplest form of  $\frac{6}{16}$  is  $\frac{3}{8}$ .

5.  $\frac{23}{7}$  is an example of a improper fraction.

B. 1.  $\frac{3}{4}$  2.  $\frac{3}{4}$  3.  $\frac{5}{9}$  4.  $\frac{3}{5}$  5.  $\frac{1}{2}$

C.

	Divide the numerator and denominator by				
	2	3	5	6	
1.	$\frac{60}{30}$	$\frac{30}{15}$	$\frac{20}{10}$	$\frac{12}{6}$	$\frac{10}{5}$
2.	$\frac{150}{300}$	$\frac{75}{150}$	$\frac{50}{100}$	$\frac{30}{60}$	$\frac{25}{50}$
3.	$\frac{120}{240}$	$\frac{60}{120}$	$\frac{40}{80}$	$\frac{24}{48}$	$\frac{40}{20}$
4.	$\frac{210}{420}$	$\frac{210}{105}$	$\frac{70}{140}$	$\frac{42}{84}$	$\frac{35}{70}$
5.	$\frac{300}{600}$	$\frac{150}{300}$	$\frac{100}{200}$	$\frac{60}{120}$	$\frac{50}{100}$

## Teacher's Worksheets

### Worksheet 1

A. 1.  $\frac{1}{15}$  2.  $\frac{11}{21}$  3.  $\frac{1}{2}$  4.  $\frac{2}{3}$

B. 1.  $\frac{8}{24}, \frac{12}{36}$  2.  $\frac{10}{80}, \frac{15}{120}$  3.  $\frac{6}{10}, \frac{9}{15}$

4.  $\frac{4}{6}, \frac{6}{9}$  5.  $\frac{2}{4}, \frac{3}{6}$

C. 1. < 2. < 3. = 4. >  
5. < 6. <

D. 1.  $\frac{1}{5}$  2.  $\frac{9}{2}$  3.  $\frac{14}{15}$  4.  $\frac{19}{22}$

### Worksheet 2

A. 1.  $\frac{16}{20}$  2.  $\frac{12}{15}$  3.  $\frac{20}{25}$

B. 1.  $\frac{7}{27}, \frac{11}{27}, \frac{17}{27}, \frac{19}{27}$  2.  $\frac{31}{29}, \frac{31}{23}, \frac{31}{13}, \frac{31}{7}$

C. 1.  $\frac{12}{13}, \frac{11}{13}, \frac{9}{13}, \frac{7}{13}$  2.  $\frac{18}{5}, \frac{18}{7}, \frac{18}{13}, \frac{18}{17}$



- C. 1. Smallest number = 0.046  
 2. Forty-six thousandths  
 3. Greatest number = 0.640  
 4. Difference = 0.594  
 5.

Ones	Decimal point	Tenths	Hundredths	Thousandths	Decimal number
0	.	0	4	6	0.046
0	.	6	4	0	0.640

### Worksheet 2

- A. 1. True 2. True 3. True 4. False 5. False

B.

	Decimal numbers	$\times 10$	$\times 100$	$\times 1000$
1.	9.9	99	990	9900
2.	31.5	315	3150	31500
3.	67.70	677	6770	67700
4.	988.81	9888.1	98881	988810
5.	766.375	7663.75	76637.5	766375

- C. 1. 3.90 3.900 2. 20.20 20.200  
 3. 19.40 19.400 4. 45.30 45.300  
 5. 364.20 364.200

### Worksheet 3

- A. 1. 893.2 2. 4.5 3. 2  
 4. 436.7 5. 13
- B. 1. Sixty and thirty-five hundredths  
 2.  $60 + 0 + \frac{3}{10} + \frac{5}{100}$   
 3. 18 4. 60.350  
 5.  $60 + 0 + 0.3 + 0.05$
- C. 1. 7.8 2. 154.6 3. 4.58 4. 9.243 5. 14.89

### Worksheet 4

- A. 1.  $4.25 + 3.8 = 8.05$   
 2. Between 6.08 and 6.8, 6.8 is greater as its tenths place is greater than that of 6.08.

3.  $7.5 \times 10 = 75$   
 4. The place value of 9 in 53.97 is nine tenth.  
 5. 5.06 is read as five point zero six.

- B. 1. 5006.002 2. 0.308 3. 54.015  
 4. 905.081 5. 14.075
- C. 1.  $\frac{24}{10}$  2.  $\frac{790}{100}$  3.  $\frac{60105}{1000}$   
 4.  $\frac{29284}{100}$  5.  $\frac{93147}{1000}$

## Teacher's Worksheets

### Worksheet 1

A.

	Decimal	Fractional
1.	0.4	$\frac{4}{100}$
2.	8.92	$\frac{9}{10} + \frac{2}{100}$
3.	16.032	$0 + \frac{3}{100} + \frac{2}{1000}$
4.	0.552	$\frac{5}{10} + \frac{5}{100} + \frac{2}{1000}$
5.	6.7	$\frac{7}{10}$

- B. 1. 2.020, 5.113, 7.000, 4.100  
 2. 25.100, 12.530, 2.200, 41.789
- C. 1. 161.71 2. 2,258.7 3. 45.98 4. 148.15
- D. 1. 140 cm 2. 2.5 km 3. Rs1,306.305

### Worksheet 2

- A. 1. 51.4 2. 8.06 3. 0.043  
 B. 1. True 2. False 3. True 4. False
- C. 1. 4.356, 43.56, 43.65, 435.6  
 2. 21.385, 23.185, 213.85, 281.35
- D. 1. 102.5 m 2. 1.6 kg 3. 38.5 L



- D. 1. 100    2. 36    3. 200    4. 76  
5. 320    6. 186

**Worksheet 2**

- A. 1. 50 days    2. 57 pages    3. 15.30 m  
4. 7.2 l    5. 6 km    6. 54 kg



- B. 1. 2.5%    2. 1%    3. 30%    4. 120%  
5. 5%    6. 35%

- C. 1. 60%    2. 80%    3. 2,782 girls

# Answers

## Theme 4: Living with Changes Lesson 7: Geometry

### Main Coursebook

#### I am ready

- a. C                      b. B                      c. S                      d. S  
e. B                      f. C
1. a. OQ, OR, OS, OP, OU, OT  
b. RT  
c. OQ, OR, OS, OP, OU, OT, RT
2. Try yourself                      3. Try yourself
4. a. open curve                      b. closed curve  
c. closed curve                      d. closed curve  
e. open curve

#### Catch Up (Page 81)

1. No                                      2. Yes
5. a. Triangles                      b. Pentagons
6. a. Yes                      b. Yes
- 7.

Solid	Number of Faces	Number of Edges	Number of Vertices	How many faces meet at each vertex?
Icosahedron	20	30	12	5
Dodecahedron	12	30	20	3

8. Do Yourself.  
9. Do Yourself.

#### Catch Up (Page 83)

1. no                                      2. yes
10. a. Intersecting lines                      b. Perpendicular lines  
c. Parallel lines
11. diameter: AB; radius: OA, OB, OC; chord: AB, DE; circumference: ACBDE; centre: O; arc: ED, AC, AB, BC, AE, AD, EB, EC, EA

#### Mental Maths

1. A 3 K 3 M 3 N 2 Z 2  
2. H 4 L 1 T 2 E 4 I 0  
3. M, E, V, Y: only straight lines; G, P, J: both curved and straight lines; S: only curved lines

#### I am a learner

- A. 1. c                      2. b                      3. b                      4. b                      5. d  
B. 1. c                      2. d                      3. e                      4. a                      5. b
- C. Try yourself
- D. 1. intersecting lines  
2. parallel lines  
3. perpendicular lines  
4. parallel lines  
5. intersecting lines
- E. 1. Obtuse                      2. right                      3. Acute  
4. Acute                      5. Obtuse
- F. 1. 45°                      2. 60°                      3. 120°                      4. 150°                      5. 180°

#### I am a thinker

1. right angle  
2. a. Straight angle                      b. Right angle  
c. Obtuse angle                      d. Acute angle

#### I am an all-rounder

- A. **English** – 1. What                      2. Which  
B. **Science** – river  
C. **Social Studies** – L, H, T, E

### Students' Worksheets

#### Worksheet 1

- A. 1. closed                      2. Parallel                      3. ray  
4. 10                      5. 180
- B. 1. intersecting                      2. parallel                      3. intersecting  
4. perpendicular                      5. intersecting
- C. 1. Arms- OA, OB; Vertex- O  
2. Arms- QP, QR; Vertex- Q  
3. Arms- LM, MN; Vertex- M  
4. Arms- ST, SR; Vertex- S  
5. Arms- OM, ON; Vertex- O

#### Worksheet 2

- A. 1. e                      2. d                      3. a                      4. b                      5. c  
B. 1. pentagon                      2. decagon                      3. triangle  
4. octagon                      5. rectangle  
C. 1. A                      2. S                      3. O                      4. R                      5. A

#### Worksheet 3

- A. 1. no                                      2. semi-circular  
3. straight lines                      4. Line  
5. circumference
- B. 1. false                      2. true                      3. false                      4. true                      5. true
- C. 1. 60°                      2. 90°                      3. 120°                      4. 140°                      5. 170°

#### Worksheet 4

- A. 1. O                      2. C                      3. O                      4. C                      5. O
- B. 1. Right angle                      2. Obtuse angle  
3. Straight angle                      4. Right angle  
5. Acute angle
- C. 1. An acute angle measures less than 90°.  
2. Two lines that meet at a point but are not at right angles are called intersecting lines.  
3. A pentagon has five sides and five angles.  
4. The length of a line segment can be measured using a ruler or a scale.  
5. The radius of a circle is half of its diameter.

### Teacher's Worksheets

#### Worksheet 1

- A. 1. Obtuse angle                      2. Acute angle  
3. Straight angle                      4. Right angle
- B. Try yourself
- C. 1. Centre                      2. radius                      3. diameter  
4. circumference                      5. semicircle

#### Worksheet 2

- A. 1. intersecting                      2. parallel  
3. perpendicular                      4. supplementary angle  
5. protractor
- B. Try yourself
- C. 1. 9 cm                      2. 15.6 cm                      3. 7 cm  
D. 1. 5 cm                      2. 4.4 cm                      3. 4.5 cm

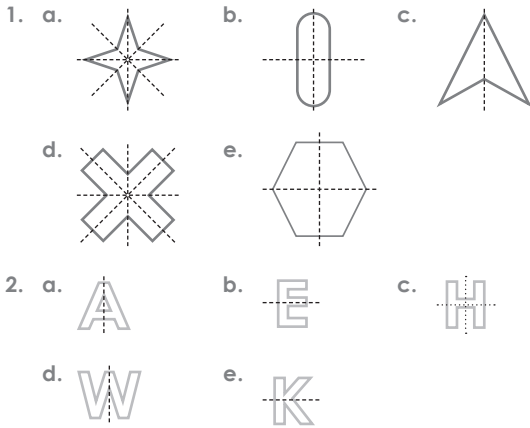
# Answers

## Theme 5: Living Across Ages

### Lesson 8: Symmetry, Patterns and Nets

#### Main Coursebook

I am ready: Try yourself



Catch Up (Page 93)

- Yes
- No
- 

Shape	$\frac{1}{4}$ turn	$\frac{1}{2}$ turn
a.		
b.		
c.		
d.		
e.		

- 12
  - 57
- 122222
  - 320

Catch Up (Page 95)

- 6
- Half turn
- Try yourself
- Top, front, side
  - Front, top, side

Mental Maths

- 6
  - four
- triangle and semicircle
  - H, I, O, and X

I am a learner

- b
  - a
  - d
  - c
  - c



- Try yourself
- a
  - a
  - c

I am a doer: A

I am an all-rounder

- English – puff huff
- Science – Try yourself
- Social Studies – Try yourself

#### Students' Worksheets

Worksheet 1

- equal
  - 2
  - infinite
  - 90
  - six
- 5
- 3

Worksheet 2

- 1, 3, 5
- 5
- Try yourself

Worksheet 3

- Regular polygons: 1, 2, 5
  - Irregular polygon: 3, 4
- 3:15; 3:45
- 
- 123454321; 12345654321
- 25; 36
- 
- 2

Worksheet 4

- 3
- Try yourself
- a
  - b
  - a
  - a
  - c

#### Teacher's Worksheets

Worksheet 1

- 1, 4, 6
- Try yourself
- One
  - One
  - Infinite
  - Two
  - One

## Worksheet 2

A.

	Shape	on $\frac{1}{4}$ turn	on $\frac{1}{2}$ turn
1.			
2.			
3.			
4.			
5.			

- B.
- |    |       |       |       |
|----|-------|-------|-------|
| 1. | Front | Side  | Top   |
| 2. | Top   | Front | Side  |
| 3. | Side  | Top   | Front |

### Case Studies

#### Theme 1: What Makes Our Land

- Meerut
- No.
- Lucknow

#### Theme 2: What Helps Us Survive

- a
- 101 trains
- No.

#### Theme 3: Different Yet Alike

- c.
- No. Because one part is  $\frac{1}{2}$  of the remaining bottles, not  $\frac{1}{2}$  of the total, so we must subtract step by step.
- The fractions will stay the same, but the number of bottles will change.

#### Theme 4: Living With Changes

- Neem
- 30% of 800 = 240
- Mango = 20% of 800 = 160, Peepal = 25% of 800 = 200. Peepal saplings were 40 more than mango saplings.

#### Theme 5: Living Across Ages

- c.
- Line of symmetry
- No. Example: Sydney Opera House does not have line symmetry.



2. Fire safety equipment should be available in school to ensure safety and prevent accidents.

C. **Social Science:** ₹85

## Students' Worksheets

### Worksheet 1

- A. 1. Cost price 2. price 3. additional  
4. profit 5. cost price

B.

	Cost price (CP)	Selling price (SP)	Profit	Loss
1.	₹2,432	₹2,558	₹126	
2.	₹3,211	₹2,772		₹439
3.	₹10,635	₹15,096	₹4,461	
4.	₹12,224	₹12,224	₹0	₹0
5.	₹23,246	₹17,614		₹5,632

C.

	Cost price (CP)	Selling price (SP)	Profit	Loss
1.	₹315	₹563	₹248	
2.	₹1744	₹856		₹888
3.	₹2457	₹2547	₹90	
4.	₹5632.50	₹1250.50		₹4,382
5.	₹25,335	₹29,657	₹4,322	

### Worksheet 2

- A. 1. ₹501 2. ₹4,307 3. ₹10,261  
4. ₹22,097 5. ₹29,571
- B. 1. ₹774 2. ₹1,006 3. ₹7,900  
4. ₹10,136 5. ₹19,248

C.

	Cost price (CP)	Selling price (SP)	Profit	Loss
1.	₹472	₹717	₹245	
2.	₹1,553	₹1,642	₹89	
3.	₹6,582	₹6,582		0
4.	₹15,347	₹8,765		₹6,582
5.	₹21,011	₹34,211	₹13,200	

### Worksheet 3

- A. 1. profit 2. profit 3. loss 4. profit 5. profit
- B. 1. ₹686 2. ₹1,345 3. ₹1,560

4. ₹9,299 5. ₹27,439
- C. 1. ₹120 2. ₹1,600 3. ₹4,380  
4. ₹5,530 5. ₹48,322

### Worksheet 4

A.

	Cost price (CP)	Selling price (SP)	Profit	Loss
1.	₹398	₹524	₹126	
2.	₹4,421	₹5,074	₹653	
3.	₹16,111	₹16,111	₹0	
4.	₹26,232	₹23,621		₹2,611
5.	₹65,166	₹65,166		₹0

- b. 1. If the cost price of a toy is ₹150 and the selling price is ₹180, the profit is ₹30.  
2. Selling a book at ₹200 when its cost price is ₹250 results in a loss of ₹50.  
3. If a cycle is bought for ₹2,000 and sold for ₹2,400, the profit percentage is 20%.  
4. If the selling price is less than the cost price, we make a loss.  
5. Cost Price = Selling Price – Profit.

- C. 1. c 2. e 3. b 4. a 5. d

### Worksheet 5

- A. 1. ₹109 2. ₹15,662 3. ₹14,572  
4. ₹29,019 5. ₹1,05,033
- B. 1. ₹968 2. ₹1,780 3. ₹3,410  
4. ₹42,118 5. ₹44,959
- C. 1. ₹290 profit 2. ₹45 loss  
3. ₹375 profit 4. No profit, no loss  
5. ₹145 loss

## Teacher's Worksheets

### Worksheet 1

- A. 1. ₹107 2. ₹425 3. ₹160  
4. ₹790 5. ₹1215
- B. 1. 20% 2. 10% 3. 87.5% 4. 8%
- C. 1. 20% 2. 20% 3. 25% 4. 50%

### Worksheet 2

1. Stationery 2. MG Road, Bengaluru  
3. Cardboard, pen, notebook, colour box, pencil box  
4. 5 items 5. 2 boxes 6. ₹125  
7. 23/08/2013 8. ₹695

# Answers

## Theme 6: Living Together Lesson 10: Mapping Skills

### Main Coursebook

#### I am ready

1. Punjab
2. Kerala
3. West Bengal
4. Gujarat

#### Catch Up:

1. Try yourself
2. a. south      b. East      c. Post office
3. a. Telangana  
b. Arabian Sea and Indian Ocean  
c. East

#### Mental Maths

1. a. 330 km    b. 8.1 cm    c. 520 km    d. 2.7 cm

#### I am a learner

1. d      2. c      3. b      4. a      5. c
1. A legend displays the meaning of the symbols, colors and styles used to represent geographic data on the map.  
2. Five benefits of a map:
  - People understand them independently of their language
  - Map contains much more information than words
  - Everyone can make a basic one
  - The understanding of them is improved by own knowledge and experience
  - Map can be folded easily and we can carry every where
1. sub-tropical wet and dry  
2. tropical wet and dry  
3. sub-tropical wet and dry  
4. sub-tropical wet and dry  
5. Panji and Thiruvananthapuram
1. Accept all relevant responses  
2. Accept all relevant responses  
3. Accept all relevant responses

**I am an artist:** Accept the all relevant responses.

**My Secret Journal:** Accept the all relevant responses.

**I am a doer:** a. Use the map to understand the distance and route clearly.

#### I am an all-rounder

##### A. English:

1. A map is a visual representation of places on a flat surface.
2. Scale helps us represent the picture of anything.

##### B. Science:

1. South corner – A beaker of water is heated.  
Change: Physical change (water changes into steam).
2. Sugar will dissolve in water.  
Solute: Sugar  
Solvent: Water
3. Kerosene is immiscible with water.

**C. Social Studies:** Accept all the relevant responses.

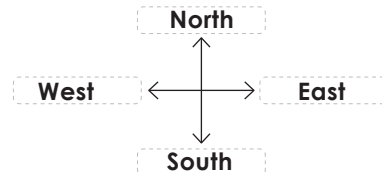
### Students' Worksheets

#### Worksheet 1

1. Map keys use symbols, colours, lines and signs to represent various features on a map.
  2. A map is a visual representation of places on a flat surface.
  3. Scale helps us represent the picture of anything, but in a smaller size, without affecting its shape.
  4. Direction helps in reading maps. The four main directions are North (N), South (S), East (E) and West (W).
  5. Online maps help to reach anywhere by keying in the address on it.
1. 3 km      2. 6 km      3. 8 km  
4. 12 km      5. 36 km
  1. false    2. true    3. true    4. false    5. true

#### Worksheet 2

A.



1. police station      2. school  
3. airport              4. school  
5. restaurant
1. false    2. false    3. false    4. true    5. true

### Worksheet 3

- A. 1. South  
2. Map keys use symbols, colours, lines and signs to represent various features on a map. They are usually located at the bottom left or right of a map.  
3. East, West, North and South. The angle between North and East is  $90^\circ$ .  
4. online maps  
5. scale
- B. 1. false 2. false 3. true 4. true 5. true
- C. 1. West 2. East 3. South 4. North 5. East

### Worksheet 4

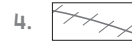
- A. Accept all the relevant responses.
- B. 1. On a map with scale  $1 \text{ cm} = 4 \text{ km}$ , if two towns are  $20 \text{ cm}$  apart, the actual distance is  $80 \text{ km}$ .  
2. The shortest route between points A and B is found by measuring using the scale and considering the actual path.  
3. On a grid map, moving from  $(2, 3)$  to  $(5, 3)$  means travelling  $6 \text{ km}$  if  $1$  grid square represents  $2 \text{ km}$ .

4. If the scale is  $1 \text{ cm} = 1 \text{ km}$ , then  $8.5 \text{ cm}$  on the map equals  $8.5 \text{ km}$  in real life.  
5. A compass rose shows four directions: North, East, South and West — East is placed to the right of North.
- C. 1. East 2. West 3. South 4. North 5. North

### Teacher's Worksheets

#### Worksheet 1

- A. 1. Do yourself.  
2. Do yourself.  
3. Restaurant
- B. 1. 4.6  
2. 8.6  
3. North



#### Worksheet 2






- A. 1. c 2. b
- B. 1. SE 2. E 3. SW 4. S 5. NE

# Answers

## Theme 7: Keeping Us Strong Lesson 11: Time and Temperature

### Main Coursebook

#### I am ready

Activity	Time (12-hour)	a.m./p.m.	Time (24-hour)
	7:00	7 a.m.	07:00
	8:00	8 a.m.	08:00
	1:30	1:30 p.m.	13:30
	5:30	5:30 p.m.	17:30
	9:30	9:30 p.m.	21:30

- a. 180 min                      b. 720 min  
 c. 324 min                      d. 935 min
- a. 8 h 44 min                  b. 10 h 20 min  
 c. 12 h 25 min                d. 23 h 20 min
- a. 900 sec                      b. 1560 sec  
 c. 760 sec                      d. 2710 sec
- a. 34 days                      b. 84 days  
 c. 39 days                      d. 88 days
- a. 6 years 3 months        b. 26 years 10 months  
 c. 33 years 4 months        d. 62 years 4 months
- a. 135 min
- a. 74 months

**Catch Up:** Accept all the relevant responses.

- a. 14 h 20 min                b. 13 h 40 min  
 c. 24 min 19 sec            d. 24 h 25 min 35 sec
- a. 8 h 35 min                b. 18 min 43 sec  
 c. 1 h 59 min 43 sec        d. 5 h 44 min 55 sec
- a. 8 h 21 min                b. Maria; 30 min 25 sec  
 c. 5 min
- a. 15 years 3 months        b. 20 years 9 months  
 c. 28 years 10 months        d. 26 years
- a. 5 years 9 months        b. 2 years 9 months  
 c. 3 years 7 months        d. 14 years 10 months
- a. 36 years                    b. 6 years 4 months

- a. 38 weeks 6 days        b. 145 h 15 min 44 sec  
 c. 106 h 10 min              d. 62 years 6 months
- a. 3 weeks 4 days  
 b. 4 weeks 2 days 6 hours  
 c. 6 h 54 min                d. 9 h 3 min 48 sec
- a. 4:45 p.m.                  b. 11:53 a.m.  
 c. 5:00 p.m.                 d. 8:45 p.m.
- a. 3rd July                    b. 16th October  
 c. 31st March                d. 11th February

#### Catch Up

- Infrared thermometer
  - mercury thermometer or Digital thermometer
- a. 55 °C                      b. 100 °C                      c. 2 °C
  - a. extremely hot              b. cold  
 c. very cold                    d. normal  
 e. very hot                      f. hot
  - a. 68 °F                      b. 122 °F                      c. 167 °F                      d. 194 °F
  - a. 65 °C                      b. 75 °C                      c. 35 °C                      d. 85 °C

#### Mental Maths

	Starting date	Duration	Finishing date
a.	9 November	<b>50 days</b>	29 December
b.	<b>6 June</b>	17 days	23 June
c.	17 November	<b>41 days</b>	28 December
d.	<b>24 July</b>	38 days	31 August
e.	5 April	35 days	<b>10 May</b>

#### I am a learner

1. c                      2. a                      3. a                      4. a                      5. a
1. c                      2. e                      3. a                      4. b                      5. d
1. 20 h 4 min                      2. 13 h  
 3. 26 h 24 min 24 sec
1. 7 h 22 min                      2. 19 h 24 min  
 3. 5 h 5 min 8 sec
1. 18 weeks 1 day 2 hours  
 2. 48 hours 40 minutes  
 3. 31 hours 2 minutes 0 seconds
1. 2 weeks 2 days 11 hours 12 minutes  
 2. 1 hour 32 minutes  
 3. 1 hour 21 minutes 13.33 seconds
1. 32 °F                      2. 50 °F                      3. 30 °C                      4. 21 °C
1. Manoj; 4 years 3 months 7 days  
 2. 2 h 10 min                      3. 1:50 p.m.  
 4. 6 years 11 months            5. Tuesday, 2 June.

**I am an artist:** Accept all the relevant responses.

**My Secret Journal:** Accept all the relevant responses.

**I am a thinker:** 1. 8:50    2. 9:05

**I am an all-rounder**

A. **English:** carefully, quickly, completely

B. **Science:** 98.6 °F or 37 °C

C. **Social Studies:** 47 years

## Students' Worksheets

### Worksheet 1

A. 1. 60    2. 60    3. 24    4. 7    5. 12

B. 1. 4    2. 11    3. 14    4. 16    5. 20

C. 1. c    2. e    3. d    4. a    5. b

### Worksheet 2

A. 1. false    2. true    3. true    4. true    5. false

B. 1. 21    2. 2    3. 4    4. 11    5. 84

C. 1. e    2. c    3. b    4. a    5. d

### Worksheet 3

A. 1. Thermometer    2. 100 °C  
3. 0 °C    4. Infrared thermometer

5. 100 years

B. 1. 45 days    2. 15 July    3. 31 days

4. 24 October    5. 27 days

C. 1. e    2. d    3. c    4. b    5. a

### Worksheet 4

A. 1. c    2. d    3. b    4. e    5. a

B. 1. 3 hours    2. 2 hours    3. 2 hours

4. 5 hours    5. 12 hours

C. 1. If a train leaves at 08:45 and reaches at 12:15, the journey time is 3 hours 30 minutes.

2. In the 24-hour clock, 3:45 p.m. is written as 15:45 hours.

3. The temperature at 6 a.m. was 8°C and at 2 p.m. it was 20°C, so the rise in temperature was 12°C.

4. The time difference between 11:50 p.m. one day and 12:20 a.m. the next day is 30 minutes.

5. Water boils at 100°C and freezes at 0°C.

## Teacher's Worksheets

### Worksheet 1

A. 1. 0515 hours    2. 0100 hours    3. 0000 hours

4. 2230 hours    5. 0030 hours    6. 1245 hours

7. 2005 hours    8. 0720 hours

B. 1. 11 h 30 min    2. 11 years 1 month

C. 1. 2 h 10 min 22 sec

2. 4 h 59 min 30 sec

D. 1. 60 weeks 4 days

2. 44 weeks 2 days 16 hours

E. 1. 2 weeks 1 day

2. 4 weeks 2 days 6 hours

### Worksheet 2

A. 1. 7:45    2. 9:20    3. 3:30    4. 12:20

B. 1. 14 days    2. 31st May    3. 30 days

4. 16 August    5. 26 days

# Answers

## Theme 8: From Satellite to Satellite

### Lesson 12: Measurement

#### Main Coursebook

#### I am ready:

- a. 70                      b. 110                      c. 150

#### Catch Up

1. kilometre                      2. multiplication
1. a.  $5,623 \text{ m} = 56,230 \text{ dm} = 5,62,300 \text{ cm} = 56,23,000 \text{ mm}$   
b.  $8.65 \text{ km} = 865 \text{ dam} = 8,650 \text{ m} = 8,65,000 \text{ cm}$   
c.  $65,252 \text{ cm} = 652.52 \text{ m} = 6.5252 \text{ hm} = 0.65252 \text{ km}$   
d.  $15,202 \text{ mm} = 15.202 \text{ m} = 1.5202 \text{ dam} = 0.015202 \text{ km}$
2. a. 3.5 km                      b. 0.476 km                      c. 10.775 km  
d. 847.62 km                      e. 0.564 m
3. 2.5 km                      4. 1.53 m
5. a. 100                      b. 50                      c. 40                      d. 20
6. a. 45,00,600 dag                      b. 4,50,06,000 g  
c. 4,50,06,00,000 cg                      d. 45,00,60,00,000 mg
7. a. 14.572 kg                      b. 145.72 hg  
c. 14,57,200 cg                      d. 1,45,72,000 mg
8. a. 62,000 g                      b. 350.24 g  
c. 3,52,14,000 g                      d. 75,420 g
9. 8,600 g                      10. 25.050 kg

#### Catch Up

1. 0.001 l                      2. Division
11. a. 3,56,000 l                      b. 18,240 l  
c. 346 l                      d. 3467.83 l
12. a. 7862.5 l                      b. 786.25 dl  
c. 78.625 hl                      d. 78,62,500 ml
13. 15,000 ml                      14. 200 l
15. a. 111 m 95 cm                      b. 359 km 60 m  
c. 291 kg 505 g                      d. 28 l 980 ml
16. a. 57 m 20 cm                      b. 180 km 33 m  
c. 134 kg 370 g                      d. 23 l 855 ml
17. a. 12 l 151 ml                      b. 89 km 50 m  
c. 83 kg 566 g                      d. 41 kg 950 g  
e. 10 l 191 ml
18. a. 6,482 m 63 cm                      b. 1,006 l 950 ml  
c. 2349 g 783 mg                      d. 5,175 km 840 m

19. a. 41 l 076 ml                      b. 42 m 51 cm  
c. 35 g 35 mg                      d. 208 cm 10 mm
20. a. 13.5 km                      b. 985 g  
c. 2.5 m                      d. 1,179 l 750 ml
21. a. g                      b. l                      c. m
22. a. iii                      b. iii                      c. i                      d. iii

#### Mental Maths

- a. 13.225 l                      b. 4,005 mg                      c. 14.7 m  
d. 34,100 g                      e. 1,70,000 m

#### I am a learner

- A. 1. a                      2. a                      3. d                      4. c                      5. a
- B. 1. 4152 cm                      2. 12 l 54 ml  
3. 36 kg 578 g                      4. 145.20 m  
5. 1054 g
- C. 1. 403 m 50 cm                      2. 114 km 304 m  
3. 545 kg 635 g                      4. 840 l 898 ml
- D. 1. 290 kg 236 g                      2. 274 l 856 ml  
3. 88 km 190 m                      4. 155 m 65 cm
- E. 1. 300 kg 432 g                      2. 1,350 l 150 ml  
3. 1,575 km 625 m                      4. 685 m 90 cm
- F. 1. 1 kg 002 g                      2. 2 l 156 ml  
3. 2 km 111.67 m                      4. 1 m 82.75 cm
- G. 1. 11 kg 500 g                      2. 10 glasses  
3. 1110 kg 296 g                      4. 6 kg 150 g  
5. 5406 km 900 m

**I am an artist:** Accept all the relevant responses.

**My Secret Journal:** Accept all the relevant responses.

#### I am a doer

- a. Use the leftover water to fill two bowls for birds

#### I am an all-rounder

- A. **English:** At her craft studio, Riya has been making ribbons since 10 o'clock. She made 1,200 cm of ribbon in 2 hours. How many metres of ribbon will she make in 6 hours?

**Solution:** 1,200 cm in 2 hours

In 6 hours =  $1,200 \times 3 = 3,600 \text{ cm}$

$3,600 \text{ cm} = 36 \text{ metres}$

- B. **Science:** 3,84,400,000 m

- C. **Social Studies:** 0.237 km

## Students' Worksheets

### Worksheet 1

- A. 1. false 2. false 3. true 4. false 5. true  
 B. 1. b 2. d 3. d 4. a 5. a  
 C. 1. 18 kg 100 g 2. 17 l 700 ml  
 3. 27 km 900 m 4. 30 m 95 cm  
 5. 44 kg 440 g

### Worksheet 2

- A. 1. true 2. false 3. false 4. true 5. true  
 B. 1. 6 cm 3 mm 2. 5345 m 3. 36,500  
 4. 2.090 km 5. 10.590 g  
 C. 1. 4.897 kg 2. 27.727 3. 39.58  
 4. 7.72 5. 17.498

### Worksheet 3

- A. 1. time 2. 100 3. 1,000  
 4. multiply 5. divide  
 B. 1. 6,000 2. 250 3. 50,500  
 4. 200 5. 8.555  
 C. 1. c 2. b 3. c 4. c 5. b

### Worksheet 4

- A. 1. c 2. e 3. d 4. a 5. b  
 B. 1. 48.79 2. 161.680  
 3. 83.962 4. 123.74  
 5. 192 m 62  
 C. 1. 5.25 kg is the same as 5250 g.  
 2. A container holds 3.5 litres of water.  
 This is equal to 3500 millilitres.  
 3. If a rope is 4.8 metres long and another  
 rope is 350 centimetres long, together  
 they measure 8.3 metres.

4. 750 millilitres is equal to 0.75 litres.  
 5. 2.45 metres is the same as 245  
 centimetres.

## Teacher's Worksheets

### Worksheet 1

A.

	measurement	in bigger units	in smaller units
1.	9 m 40 cm	9.40 m	940 cm
2.	<b>8 kg 900 g</b>	8.900 kg	<b>8900 g</b>
3.	<b>75 cl</b>	<b>0.750 l</b>	750 ml
4.	5 l 426 ml	<b>5.426 l</b>	<b>5426 ml</b>
5.	4 m 23 cm	<b>4.23 cm</b>	<b>423 cm</b>
6.	<b>2 l 825 ml</b>	2.825 l	<b>2825 ml</b>
7.	<b>5 kg 56 g</b>	<b>5.056 kg</b>	5056 g
8.	23 kg 120 g	<b>23.120 kg</b>	23120 g

- B. 1. 286 m 88 cm 2. 430 kg 95 g  
 C. 1. 3 l 049 ml 2. 1 m 71 cm  
 D. 1. a. 80.1 decilitres b. 801 centilitres  
 c. 8010 millilitres  
 2. a. 4080 hectograms  
 b. 40800 decagram c. 408000 grams

### Worksheet 2

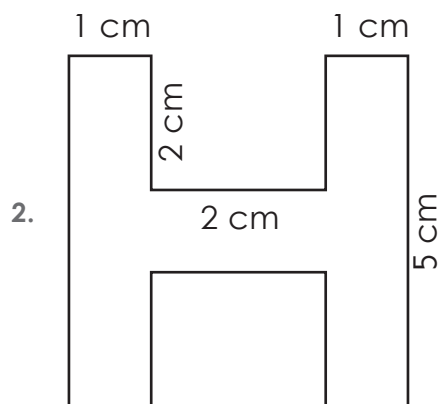
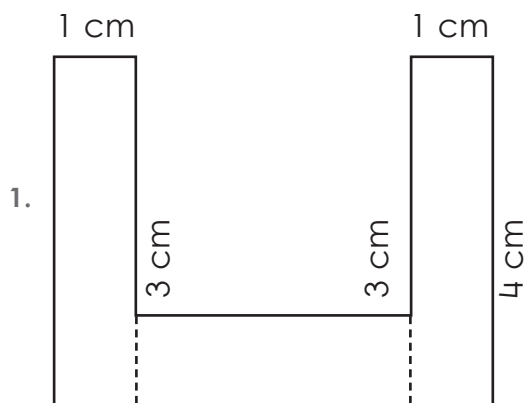
- A. 1. b 2. b 3. a 4. a 5. a  
 B. 1. 13.575 km 2. 2 l 016 ml 3. ₹1,093.75  
 4. 9 l 10 ml

# Worksheet 1

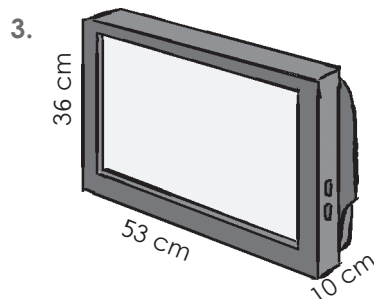
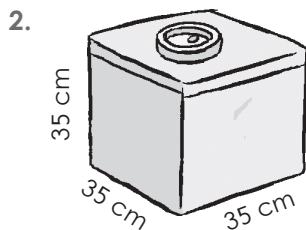
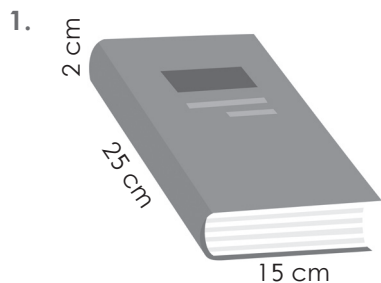
A. Fill in the table.

LENGTH OF THE RECTANGLE	BREADTH OF THE RECTANGLE	PERIMETER OF THE RECTANGLE
9 cm	7 cm	
40 km	8 km	
26 m	3 m	

B. Find the area of each of the following figures.



C. Find the volume of these objects.



Teacher's Signature: \_\_\_\_\_

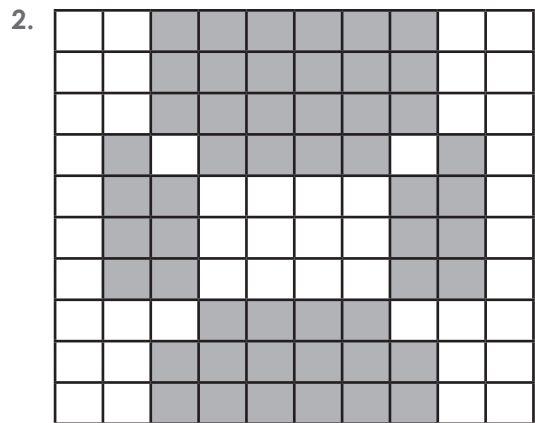
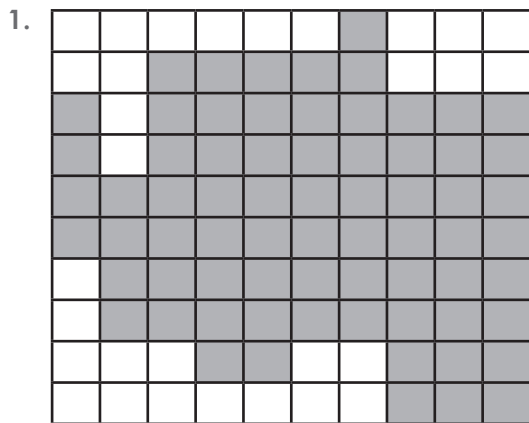
Remarks: \_\_\_\_\_

# Worksheet 2

A. Find the area of a square whose perimeter is as given below.

1. 64 cm
2. 102 cm

B. Calculate the area of these shapes in square units. The side of each square is 1 unit.



C. Find the volume for each of the objects given below.

1.



length = 15 m

width = 6 m

height = 2 m

volume = \_\_\_\_\_

2.



length = 10 cm

width = 9 cm

height = 30 cm

volume = \_\_\_\_\_

Teacher's Signature: \_\_\_\_\_

Remarks: \_\_\_\_\_

# Answers

## Theme 9: From Signs to Signals Lesson 14: Collecting and Representing Data

### Main Coursebook

#### I am ready

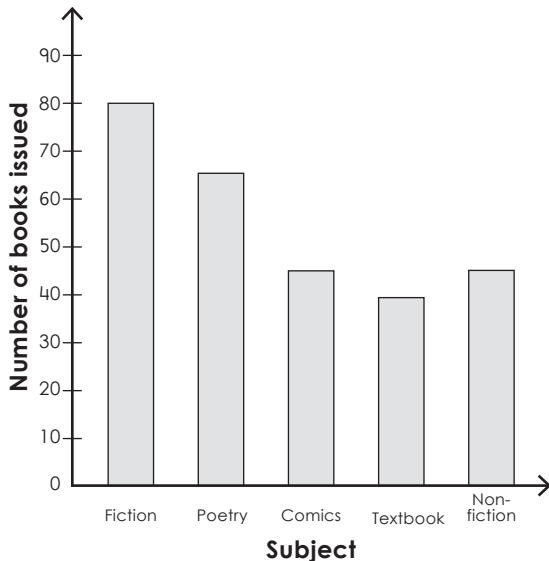
1. July      2. September and June  
3. ₹200    4. ₹30      5. ₹15

1.

Class	Pictograph
II	♥♥♥♥♥♥♥♥
III	♥♥♥♥♥♥♥
IV	♥♥♥♥♥♥♥♥♥♥♥♥♥♥
V	♥♥♥♥♥♥♥♥♥♥♥♥

(♥ = 5 students)

2.



3. a. black    b. 25      c. 105    d. pink

4.

#### Favourite pastime



5. a. Music      b. Debating Society

#### c. Debating Society

Ice cream flavours	Number of Students
chocolate	
strawberry	
vanilla	
butterscotch	
tutti-frutti	

7. a. 200      b. 650      c. Sunday  
d. Wednesday and Friday    e. 1,500

#### Mental Maths

- a. Sheetal    b. Asif    c. ₹200    d. ₹600    e. 5

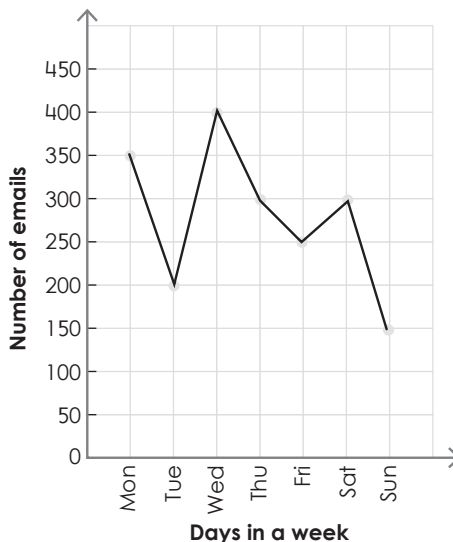
#### I am a learner

- A. 1. b      2. d      3. a      4. c      5. a  
A.

Day	Pictograph
Mon	♦♦♦♦♦♦♦♦
Tue	♦♦♦♦♦♦♦♦
Wed	♦♦♦♦♦♦♦
Thurs	♦♦♦
Fri	♦♦♦♦
Sat	♦♦♦♦♦♦♦♦
Sun	♦♦♦♦♦♦♦♦

(♦ = 5 students)

#### B. Number of Emails Received from Clients





7. Wednesday's temperature was  $7^{\circ}\text{C}$  lower than Thursday's temperature.
8. The temperature on Sunday was lower than on Thursday.

## Teacher's Worksheets

### Worksheet 1

1. August
2. 1000 visitors
3. Accept all the relevant responses
4. 800 visitors
5. ascending to descending
6. Accept all the relevant responses

### Worksheet 2

1. Blue
2. 45 students
3. 15 students
4. 15 students

### Case Studies

#### Theme 6

1. b (Wooden toys)
2. Wooden toys, because profit per piece is higher ( $\text{₹}35 > \text{₹}30$ )

3. Selling more items does not always give more profit because profit depends on the difference between cost price and selling price, not just on the number of items sold.

#### Theme 7

1. C (7:50 p.m)
2. To reach before 9:00 p.m., the latest start time for return:  
So, they could start by 4:25 p.m.
3. Time spent at Jaipur = 3 hours 15 minutes

#### Theme 8

1. a
2. 1213
3. The length of the Godavari River on the map will be 14.65 cm.

#### Theme 9

1. C (Sandwich and Idli)
2. Sandwich, because it is liked by the most students.
3. No.