Answers

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

Main Coursebook

I am ready

1. 204679 2. 976240 3. 976420
4. a. 976420 b. 204679 c. 771741
1. 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
2. a. 52,00,300 b. 1,87,00,009
   c. 7,11,002 d. 70,01,005

Catch Up (Page 4)

1. 99,99,999 2. 1,00,00,000
3. 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
4. a. 35,036 b. 2,00,41,506
   c. 34,84,000
5.

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

6. a. > b. > c. > d. =
7. 3,44,568 (E) < 4,18,56,784 (E) < 6,49,08,401 (O) < 29,87,12,345 (O)
8. 29,27,22,416 (E) < 4,92,34,240 (E) < 3,28,61,237 (O) < 23,44,568 (E)
9. 1,000,001
10. a. 18,000,000 b. 76,005,002
    c. 8,357,248
11. 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)

1. No 2. No
12.

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

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

Mental Maths

a. 10 b. 20,00,006 c. 1,00,00,000
d. 9,76,700; 9,77,000
e. 410 f. 50,000

I am a learner

A. 1. b 2. b 3. c 4. a 5. a
B. 1. 3,47,790 7,000
   2. 964,815 900,000
   3. 6,00,488 8
   4. 733,901 30,000
C. 1. < 2. > 3. > 4. >
D. 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	35,82,920	35,82,900	35,83,000
2.	2,33,67,433	2,33,67,430	2,33,67,400	2,33,67,000
3.	8,92,53,549	8,92,53,550	8,92,53,500	8,92,54,000

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	41,52,626	41,52,624
2.	37,48,280	37,48,281	37,48,279
3.	2,73,48,312	2,73,48,313	2,73,48,311
4.	5,27,18,072	5,27,18,073	5,27,18,071
5.	7,16,97,840	7,16,97,841	7,16,97,839

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

Theme 1: What Makes Our Land
Lesson-2: Operations 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

A. 1. b 2. b 3. a 4. b 5. d
B. 1. False 2. False 3. True 4. False 5. False
C. 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
D. 1. 29,72,88,324 2. 12,18,76,887
3. 25,66,63,890
E. 1. Q = 2,30,912; R = 15
2. Q = 7,69,171; R = 81
3. Q = 1,20,448; R = 202
F. 1. 2,35,28,002 females
2. 6,79,41,205 3. 7,52,50,116
4. 7,486 5. 5,47,259
G. 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

A. 1. → c 2. → e 3. → b 4. → a 5. → d

B. 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

C. 1. 0 2. 5,65,42,300 3. 8,23,59,621 4. 1 5. 3,43,86,008

Worksheet 2

A. 1. subtrahend 2. successor 3. multiplier 4. Division 5. predecessor

B. 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

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

Worksheet 3

A. 1. 0 2. 1 3. 1 4. 1 5. 8,49,22,897

B. 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 × 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 ÷ 24 = 14,403, then 14,403 × 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.

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

2.

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

3.

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

4.

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

C. 1. ₹4,51,125 2. ₹8,433; ₹28,122

Worksheet 2

A. 1. 27 2. 37 3. 40 4. 0

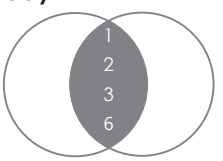
B. 1. 19 2. 7 3. 34 4. 2

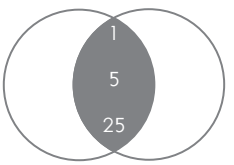
C. 1. 3,92,700 apples 2. ₹17,13,985 3. ₹2,48,39,000 4. ₹1,99,980 5. ₹20,86,000

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

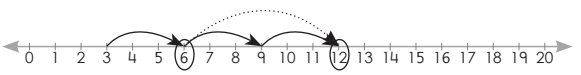
Main Coursebook

I am ready

1. a. 

b. 

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



b. First two common multiples: 10 and 20s

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
3.

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

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

Catch Up (Page 30)

1. false 2. false 3. true
5. 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97
6. 29, 31 and 71, 73 are twin primes.
7. a. 2 × 31 b. 7 × 13
   c. 2 × 2 × 3 × 3 × 3 d. 2 × 2 × 2 × 2 × 3 × 3
   e. 13 × 13
8. a. 2 × 2 × 2 × 2 × 3 b. 3 × 3 × 7
   c. 3 × 29 d. 2 × 2 × 2 × 3 × 5
   e. 2 × 2 × 47
9. a. 13 b. 18 c. 1 d. 8
10. a. 7 b. 21 c. 5 d. 25
11. a. 56 b. 60 c. 36 d. 192
12. 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

A. 1. b 2. c 3. d 4. d 5. a
B. 1. 1, 2, 5 and 10 2. 1, 6 and 12
   3. 3 4. 20 5. 1 and 5
C. 1. 5 2. 7 3. 6 4. 7
   5. 5 6. 48
D. 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

A. **English –** Collective noun: team
   Abstract noun: confidence
   Collective noun: class
   Abstract noun: attention
B. **Science –** 560 flats
C. **Social Studies –** 10:00 pm

Students' Worksheets

Worksheet 1

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

A. 1. false 2. true 3. false 4. true 5. true
B. 1. yes 2. yes 3. no 4. no 5. no
C. 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

A. 1. false 2. true 3. true 4. true 5. false
B. 1. itself 2. 1 3. 1
   4. 2 5. odd
C. 1. 2 × 3 × 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 ÷ 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 × 2 × 2 × 3; Only 1 way
   2. 2 × 3 × 5; Only 1 way
   3. 7 × 5; Only 1 way
   4. 3 × 3 × 5; Only 1 way
   5. 2 × 2 × 2 × 2 × 5; Only 1 way

Teacher's Worksheets

Worksheet 1

A. 1. 40 2. 1 3. 12 4. 27
B. 1. 2 × 2 × 3 2. 3 × 3 × 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	**3**	4	**6**	12	–	–
18	1	**2**	3	**6**	**9**	**18**	–	–
30	1	2	**3**	5	**6**	**10**	15	**30**
40	1	**2**	4	5	**8**	**10**	**20**	40
63	**1**	3	**7**	**9**	**21**	63	–	–

C. 1. 5 2. 36

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)

1. Fractions with the same denominator are called like fractions.
2. 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 –**

1. Rashi will be shading equal parts in the figures.
2. 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. unitfraction

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

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. $\frac{18}{5}, \frac{18}{7}, \frac{18}{13}, \frac{18}{17}$

Theme 3: Different Yet Alike
Lesson-5: Understanding Decimals

Main Coursebook

I am ready

1. 0.1 2. 0.35

1. a. 0.03 b. 10.052

2. a. 3.6 3.7 3.8

b. 15.11 15.12 15.13

3. a. 0.5 b. 3.8 c. 3.67 d. 4.691 e. 8.485

4. a. $\frac{38}{10}$ b. $\frac{453}{100}$ c. $\frac{7}{100}$ d. $\frac{93402}{100}$

MATHEMATICS

e. $\frac{1}{1000}$ f. $\frac{88712}{1000}$

5. a. 5 + 0.4; $5 + \frac{4}{10}$

b. 60 + 7 + 0.9; $60 + 7 + \frac{9}{10}$

c. 50 + 1 + 0.6 + 0.02; $50 + 1 + \frac{6}{10} + \frac{2}{100}$

d. 300 + 20 + 1 + 0 + 0.07; $300 + 20 + 1 + 0 + \frac{7}{100}$

e. 2 + 0 + 0 + 0.005; $2 + 0 + 0 + \frac{5}{1000}$

f. 70 + 3 + 0.4 + 0.05 + 0; $70 + 3 + \frac{4}{10} + \frac{5}{100} + 0$

6. a. 78.058 b. 67.03 c. 0.809

Catch Up (Page 59)

1. 0.099 2. 2

7. a. 0.20 0.200 b. 82.6 82.600
c. 41.20 41.200 d. 7.0 7.00
e. 68.1050 68.10500

8. a. 6.30; 6.16 b. 7.530; 13.400; 313.086
c. 5.900; 32.170; 80.045

9. a. > b. < c. > d. =

Catch Up (Page 61)

1. No 2. 5.607

10. a. 5.798 b. 14.329 c. 44.184 d. 92.14

11. 24.8 km

12. a. 937.125 b. 3.946 c. 19.186 d. 43.24

13. 5.17 m

14. a. 17 b. 206.5 c. 316.44
d. 449.19 e. 2307.026

15. 76.5 cm

16. a. 10.82 b. 14.47 c. 336.63 d. 377.52

17. a. 1.9 km b. 23.75 l

18. a. 27.4 b. 873.9 c. 4390

19. a. 10 b. 100 c. 1000

Mental Maths

1. a. 21 b. 5.58 c. 4.5724 d. 0.1264

2. a. 35.175 b. 100 c. 2.1375 d. 1000

I am a learner

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

B. 1. 2450.0 2. 91.3 3. 100
4. 0.014 5. 1.732 6. 41.250

C. 1. 4.723, 2.320, 24.070, 56.200
2. 91.880, 124.167, 935.120, 21.293
3. 62.900, 430.350, 216.915, 122.330
4. 1.047, 222.100, 58.220, 78.700

D. 1. 132.018 2. 294.236 3. 5131.558

E. 1. 160.135 2. 7.073 3. 369.244

F. 1. 837.52 2. 134.406 3. 0.224
4. 2.531 5. 1070 6. 66276.11

I am an artist: Try yourself

My Secret Journal: Try yourself

I am a thinker: Half of 2 litres is 1 litre.
Ramesh poured 0.75 litre, which is less than 1 litre.
So, the bottle is less than half full.

I am an all-rounder

A. **English –** 1. thirst 2. third

B. **Science –** A fish breathes through gills, while a frog breathes through lungs and skin.
So, a frog can live both on land and in water.

C. **Social Studies –**
Plant: - Cactus and Date Palm
Animals: - Camel and Desert fox

Students' Worksheets

Worksheet 1

A. Accept all relevant responses.

B.

	Decimal numbers	÷ 10	÷ 100	÷ 1000
1.	9.3	0.93	0.093	0.0093
2.	85.6	8.56	0.856	0.0856
3.	98.77	9.877	0.9877	0.09877
4.	308.94	30.894	3.0894	0.30894
5.	62.331	6.2331	0.62331	0.062331

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 3. False

B.

	Decimal numbers	× 10	× 100	× 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 x 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	$\frac{4}{100}$	0
2.	8.92	$\frac{9}{10} + \frac{2}{100}$	8
3.	16.032	$0 + \frac{3}{100} + \frac{2}{1000}$	10 + 6
4.	0.552	$\frac{5}{10} + \frac{5}{100} + \frac{2}{1000}$	0
5.	6.7	$\frac{7}{10}$	6

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

Theme 4: Living With Changes
Lesson-6: Percentage

Main Coursebook

I am ready

a. $\frac{10}{100}$; 0.10 b. $\frac{14}{100}$; 0.14 c. $\frac{37}{100}$; 0.37
d. $\frac{30}{100}$; 0.30

Catch Up (Page 71)

1. Yes 2. Yes
1. a. 48% b. 259% c. 68% d. 25% e. 735%
2. a. $\frac{28}{100}$ b. $\frac{74}{100}$ c. $\frac{99}{100}$ d. $\frac{167}{100}$ e. $\frac{218}{100}$
3. a. 570% b. 2460% c. 6821%
d. 15312% e. 438660%
4. a. 0.54 b. 0.82 c. 1.43 d. 2.66 e. 3.85
5. a. 5% b. 4% c. 2% d. 44%
6. 80% 7. 40%
8. Bela – 66 marks

Mental Maths

Fraction	Per cent
$\frac{15}{2}$	750
$\frac{1}{4}$	25%
$\frac{36}{180}$	20%

Decimal	Per cent
0.56	56
0.784	78.4%
1.41	141%

I am a learner

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

B.

Fraction	Decimal	Per cent
$\frac{1}{10}$	0.1	10%
$\frac{45}{100}$	0.45	45%
$\frac{82}{100}$	0.82	82%
$\frac{256}{100}$	2.56	256%

C. 1. 168 2. 232 3. $\frac{59}{100}$
4. 2356% 5. 1008 6. 4.38

D. a. 500 marks b. 108 pages
c. 40% d. 37.4 l

I am a doer: 15 flowering plants

I am an all-rounder

A. **English –**

sw – swap, swat, swing, swans, swirl, swear, sweep, sweet, swift, switch, sword, sweater – 60%

oe - toe, doer, shoe, shoes, poem, poetry, tomatoes – 35%

B. **Science –** 0.1% to 4%

C. **Social Studies –** 33 years; $\frac{33}{79}$

Students' Worksheets

Worksheet 1

A. 1. 150% 2. 2140% 3. 6734%
4. 37% 5. 356%

B. 1. 23% 2. 67% 3. 145% 4. 80% 5. 325%

C. 2

Worksheet 2

A. 1. 25% of 200 is 50.

2. 0.5% is the same as 0.005 or $\frac{1}{200}$.

3. If a shirt costs ₹800 and is sold at 10% discount, the selling price is ₹720.

4. 75% of a number is less than the number.

5. 60 out of 80 marks is 75%.

B. 1. 0.22 2. 0.96 3. 1.89
4. 0.0592 5. 0.7642

C. 5

Worksheet 3

A. 1. 44 2. 105.6 3. 270 4. 366 5. 1,250

B. 1. 115% 2. 318% 3. 24% 4. 620% 5. 470%

C. 2

Worksheet 4

A. 1. 27% 2. 56% 3. 68% 4. 82% 5. 97%

B. 1. 2% (approx.) 2. 2%
3. 4% 4. 5% 5. 2%

C. 4

Teacher's Worksheets

Worksheet 1

A. 1. $\frac{43}{100}$ 2. $\frac{34}{100}$ 3. $\frac{72}{100}$
4. $\frac{63}{100}$ 5. $\frac{9}{100}$ 6. $\frac{27}{100}$

B. 1. $\frac{10}{20}$; 50% 2. $\frac{23}{50}$; 46% 3. $\frac{19}{100}$; 19%

C. 1. 93% 2. 492% 3. 683%
4. 2945% 5. 4864% 6. 8%

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

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

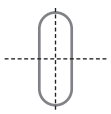
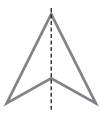
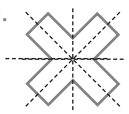
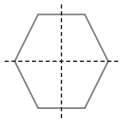
Worksheet 2

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

Theme 5: Living Across Ages
Lesson-8: Symmetry, Patterns and Nets

Main Coursebook

I am ready: Try yourself

1. a.  b.  c. 
d.  e. 
2. a.  b.  c. 
d.  e. 

Catch Up (Page 93)

1. Yes 2. No
3.

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

4. a. 12 b. 122222
c. 57 d. 320

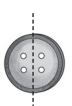
Catch Up (Page 95)

1. 6 2. Half turn
5. Try yourself
6. a. Top, front, side b. Front, top, side

Mental Maths

1. a. 6 b. triangle and semicircle
c. four d. H, I, O, and X

I am a learner

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

MATHEMATICS

C. Try yourself

D. 1. a 2. a 3. c

I am a doer: A

I am an all-rounder

A. **English –** puff huff

B. **Science –** Try yourself

C. **Social Studies –** Try yourself

Students' Worksheets

Worksheet 1

A. 1. equal 2. 2 3. infinite
4. 90 5. six

B. 5

C. 3

Worksheet 2

A. 1, 3, 5

B. 5

C. Try yourself

Worksheet 3

A. Regular polygons: 1, 2, 5
Irregular polygon: 3, 4

B. 1. 3:15; 3:45

2. 

3. 123454321; 12345654321

4. 25; 36

5. 

C. 2

Worksheet 4

A. 3 B. Try yourself

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

Teacher's Worksheets

Worksheet 1

A. 1, 4, 6

B. Try yourself

C. 1. One 2. One 3. Infinite
4. Two 5. 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

1. Meerut
2. No.
3. Lucknow

Theme 2: What Helps Us Survive

1. a
2. 101 trains
3. No.

Theme 3: Different Yet Alike

1. c.
2. 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.
3. The fractions will stay the same, but the number of bottles will change.

Theme 4: Living With Changes

1. Neem
2. 30% of 800 = 240
3. Mango = 20% of 800 = 160, Peepal = 25% of 800 = 200. Peepal saplings were 40 more than mango saplings.

Theme 5: Living Across Ages

1. c.
2. Line of symmetry
3. No. Example: Sydney Opera House does not have line symmetry.

Theme 6: Living Together
Lesson-9: Profit and Loss

Main Coursebook

I am ready

a. ₹60 b. ₹5 c. ₹60 d. ₹120
Amount of money she will have left after shopping is ₹950.

Catch Up

1. Yes 2. No

1. a. Profit = ₹48 b. Profit = ₹315
c. Profit = ₹1,715 d. Loss = ₹2,414
e. Loss = ₹3,271 f. Loss = ₹11,041

2. a. Loss = ₹18,154 b. Profit = ₹239.50
c. ₹3,800 d. Loss of ₹60

3. a. ₹3,982 b. ₹12,245 c. ₹45,692

4. a. ₹3,130 b. ₹11,211 c. ₹30,550

5. a. ₹73,107 b. ₹33,409 c. ₹10,530

Catch Up

1. Cost price 2. Selling price

6. a. ₹605 b. ₹965.12 c. ₹1,087.68

7. a. ₹300 b. ₹600 c. ₹1400

8. a. 40% b. 50% c. 11.11%

9.

ITEM	QUANTITY (QTY)	RATE (IN ₹)	AMOUNT (QTY × RATE)
Cookies	5	110	**₹550**
Breads	2	40	**₹80**
Buns	5	35	**₹175**
Pastries	10	62.50	**₹625**
Cupcakes	20	24	**₹480**
Total			**₹1,910**

₹90

10. a.

ITEM	QUANTITY	RATE (IN ₹)	AMOUNT
Oranges	2 kg	₹120	₹240
Grapes	2 ½ kg	₹150	₹375
Bananas	5 dozen	₹60	₹300
Watermelons	8	₹45	₹360
Total			₹1275

b.

ITEM	QUANTITY	RATE (IN ₹)	AMOUNT
Ice cream bars	4	₹15	₹60
Ice cream cups	10	₹10	₹100
Ice cream sandwiches	5	₹35	₹175
Brick ice creams	2	₹225	₹450
Total			₹785

Mental Maths

a. less
b. Selling price
c. overhead charges
d. subtract
e. Cost price

I am a learner

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

B. a. iv b. v c. ii d. i
e. vi f. iii

C. a. ₹5139 b. ₹20,490 c. ₹950.4
d. ₹1666 e. ₹16,545.45

D. a.

ITEM	QUANTITY	RATE (IN ₹)	AMOUNT
Biscuits	5	₹6.50	₹32.5
Raisins	7	₹86.50	₹605.5
Chocobar	4	₹15.25	₹61
Coconut water	10	₹25	₹250
Total			₹949

b.

ITEM	QUANTITY	RATE (IN ₹)	AMOUNT
Notebooks	8	₹142	₹1136
Pens	6	₹67	₹402
Calculators	3	₹180	₹540
Rulers	10	₹12	₹120
Total			₹2198

C.

ITEM	QUANTITY	RATE (IN ₹)	AMOUNT
Shirts	5	₹499	₹2495
Frocks	6	₹859	₹5154
shoes	4 pairs	₹499	₹1996
Handkerchiefs	10	₹20	₹200
Total			₹9845

I am a thinker: ₹96 profit

I am an all-rounder

A. **English:**
SELLING PRICE: The price at which a shopkeeper sell the goods to their customers is called the selling price (SP).
COST PRICE: The price at which a shopkeeper buys goods from the market is called the cost price (CP).
LOSS: The loss is the amount lost by selling an article at a price less than its cost price.
PROFIT: The profit is the amount gained by selling an article at a price greater than its cost price.

B. **Science:**
1. Fire extinguishers help by putting out a small fire before it spreads.
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

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. yes 2. no

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

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

B. 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

C. 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

D. 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

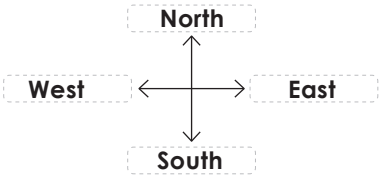
A. 1. Map keys use symbols, colours, lines and signs to represent various features on a map.
2. A map is a visual representation of places on a flat surface.
3. Scale helps us represent the picture of anything, but in a smaller size, without affecting its shape.
4. Direction helps in reading maps. The 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.

B. 1. 3 km 2. 6 km 3. 8 km
4. 12 km 5. 36 km

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

Worksheet 2

A.



B. 1. police station 2. school
3. airport 4. school
5. restaurant

C. 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°.
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 cm = 4 km, if two towns are 20 cm apart, the actual distance is 80 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 km if 1 grid square represents 2 km.
4. If the scale is 1 cm = 1 km, then 8.5 cm on the map equals 8.5 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 4. 

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

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

1. a. 180 min b. 720 min
   c. 324 min d. 935 min
2. a. 8 h 44 min b. 10 h 20 min
   c. 12 h 25 min d. 23 h 20 min
3. a. 900 sec b. 1560 sec
   c. 760 sec d. 2710 sec
4. a. 34 days b. 84 days
   c. 39 days d. 88 days
5. a. 6 years 3 months b. 26 years 10 months
   c. 33 years 4 months d. 62 years 4 months
6. 135 min
7. 74 months

Catch Up: Accept all the relevant responses.

8. a. 14 h 20 min b. 13 h 40 min
   c. 24 min 19 sec d. 24 h 25 min 35 sec
9. a. 8 h 35 min b. 18 min 43 sec
   c. 1 h 59 min 43 sec d. 5 h 44 min 55 sec
10. a. 8 h 21 min b. Maria; 30 min 25 sec
    c. 5 min
11. a. 15 years 3 months b. 20 years 9 months
    c. 28 years 10 months d. 26 years
12. a. 5 years 9 months b. 2 years 9 months
    c. 3 years 7 months d. 14 years 10 months
13. a. 36 years b. 6 years 4 months
14. a. 38 weeks 6 days b. 145 h 15 min 44 sec
    c. 106 h 10 min d. 62 years 6 months
15. a. 3 weeks 4 days
    b. 4 weeks 2 days 6 hours
    c. 6 h 54 min d. 9 h 3 min 48 sec
16. a. 4:45 p.m. b. 11:53 a.m.
    c. 5:00 p.m. d. 8:45 p.m.
17. a. 3rd July b. 16th October
    c. 31st March d. 11th February

Catch Up

1. Infrared thermometer
2. mercury thermometer or Digital thermometer

18. a. 55 °C b. 100 °C c. 2 °C
19. a. extremely hot b. cold
    c. very cold d. normal
    e. very hot f. hot
20. a. 68 °F b. 122 °F c. 167 °F d. 194 °F
21. a. 65 °C b. 75 °C c. 35 °C d. 85 °C

Mental Maths

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

I am a learner

A. 1. c 2. a 3. a 4. a 5. a
B. 1. c 2. e 3. a 4. b 5. d
C. 1. 20 h 4 min 2. 13 h
   3. 26 h 24 min 24 sec
D. 1. 7 h 22 min 2. 19 h 24 min
   3. 5 h 5 min 8 sec
E. 1. 18 weeks 1 day 2 hours
   2. 48 hours 40 minutes
   3. 31 hours 2 minutes 0 seconds
F. 1. 2 weeks 2 days 11 hours 12 minutes
   2. 1 hour 32 minutes
   3. 1 hour 21 minutes 13.33 seconds
G. 1. 32 °F 2. 50 °F 3. 30 °C 4. 21 °C
H. 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

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 m = 56,230 dm = 5,62,300 cm = 56,23,000 mm
b. 8.65 km = 865 dam = 8,650 m = 8,65,000 cm
c. 65,252 cm = 652.52 m = 6.5252 hm = 0.65252 km
d. 15,202 mm = 15.202 m = 1.5202 dam = 0.015202 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 × 3 = 3,600 cm

3,600 cm = 36 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.	**8 kg 900 g**	8.900 kg	**8900 g**
3.	**75 cl**	**0.750 l**	750 ml
4.	5 l 426 ml	**5.426 l**	**5426 ml**
5.	4 m 23 cm	**4.23 cm**	**423 cm**
6.	**2 l 825 ml**	2.825 l	**2825 ml**
7.	**5 kg 56 g**	**5.056 kg**	5056 g
8.	23 kg 120 g	**23.120 kg**	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

Theme 8: From Satellite to Satellite
Lesson-13: Perimeter, Area and Volume

Main Coursebook

I am ready

	Shape	Length	Breadth	Perimeter	Area
(i)	rectangle	15 m	10 m	50 m	150 sq. m
(ii)	rectangle	24 cm	12 cm	72 cm	288 sq. cm
(iii)	square	12 m	12 m	48 m	144 sq. m
(iv)	rectangle	30 cm	12 cm	84 cm	360 sq. cm
(v)	square	6 mm	6 mm	24 mm	36 sq. mm

Catch Up

1. 20 cm 2. 20 cm

1. a. 22 cm b. 60 cm c. 17.6 cm
d. 75 cm

2. a. 10 cm b. 7 cm c. 45 cm

3. 35 cm 4. 25 cm

Catch Up

1. yes 2. no

5. a. 15 sq. cm b. 135 sq. cm
c. 1,050 sq. cm d. 188.65 sq. m

6. a. 625 sq. cm b. 112.36 sq. cm
c. 150.0625 sq. m d. 1,056.25 sq. m

7. a. 97,500 sq. m; ₹341,250
b. ₹5,80,890 c. rectangle
d. 5 m

8. a. 2 sq. cm b. 4.5 sq. cm c. 9 sq. cm

9. a. 187.5 sq. cm b. 32.5 sq. cm
c. 103.75 sq. cm

10. a. 34.375 sq. cm

11. a. 14 sq. unit b. 12 sq. unit
c. 9 sq. unit d. 13 sq unit
e. 13 sq. unit f. 17 sq. unit

12. a. 141 sq. cm b. 440 sq. cm
c. 24 sq. m d. 112 sq. cm
e. 100 sq. cm f. 82 sq. cm

Catch Up

1. Volume indicates the total amount of space covered by an object. Capacity refers to the ability of something to hold, absorb or receive by an object.

2. 1 cu. km

13. a. 12; 12 cu. cm b. 21; 21 cu. cm
c. 9; 9 cu. cm

14. a. 576 cu. cm b. 2500 cu. cm
c. 1,601.25 cu. cm d. 3,095.75 cu. cm

15. a. 3,375 cu. cm b. 8,000 cu. cm
c. 28,094.464 cu. cm d. 238.328 cu. m

16. a. 60,000 cu. cm b. 640 cu. cm
c. 12,50,000 cu cm d. 64

Mental Maths

a. 120 cu. cm b. 960 cu. cm
c. 3,750 cu. m d. 210 cu. m
e. 100000 cu. cm

I am a learner

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

B. 1. Perimeter = 28 cm; Area = 48 sq. cm
2. Perimeter = 14 m; Area = 10 sq. m
3. Perimeter = 440 cm; Area = 12,000 sq. cm
4. Perimeter = 520 cm; Area = 16,800 sq. cm
5. Perimeter = 4,200 m; Area = 10,80,000 sq. m

C. 1. 1,500 cu. cm 2. 1,080 cu. cm
3. 7,500 cu. m 4. 500 cu. m
5. 128787.625 cm

D. 1. 3,375 cu. cm 2. 6,434. 856 cu. cm
3. 15,625 cu. m 4. 27,000 cu. cm
5. 1,26,884.390625 cu. m

E. 1. Perimeter = 3 km; Area = 0.5 sq. km
2. 6,000 bricks 3. 10,400 tiles
4. ₹0.857 per sq. m; 14,000 sq. m
5. Perimeter = 320 cm; Area = 4,800 sq. cm

I am an artist: 1,000 cm^3

My Secret Journal: Accept all the relevant responses.

I am a thinker: 30 cubes

I am an all-rounder

A. **English:**
1. True 2. True

B. **Science:** Perimeter = 100 m; Area = 600 sq. m

C. **Social Studies:** Area = 30,000 sq. m

Students' Worksheets

Worksheet 1

A. 1. Side × Side 2. Length × Breadth
3. Length × Breadth × Height
4. 4 × Side 5. 2(Length+Breadth)

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

C. Accept all the relevant responses.

Worksheet 2

A. 1. Sum of all sides 2. two
3. Side × Side × Side
4. Length × Breadth × Height 5. 4

B. 1. Length × Breadth
2. Length × Breadth × Height
3. Side × Side × Side
4. 2 (Length + Breadth)
5. Length × Breadth

C. 1. 24 cm 2. 16 cm 3. 101 cm
4. 18 m 5. 37 cm

Worksheet 3

A. 1. square 2. 1 sq. cm 3. 4 cm
4. perimeter 5. 9

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

C. 1. The perimeter of a rectangle with length 8 cm and breadth 5 cm is 26 cm.
2. The area of a square with side 12 m is 144 m^2.
3. 5 A cuboid with length 4 m, breadth 3 m and height 2 m has a volume of 24 m^3.
4. The perimeter of a triangle with sides 4.5 m, 3.2 m, and 5.3 m is 13 m.
5. A cube with side 7 cm has a volume of 343 cm^3.

Worksheet 4

A. 1. 6 2. Side × Side × Side
3. $\frac{1}{2}$ × Base × Height 4. 3
5. length × breadth × height

B. 1. 9 sq .m 2. 4 sq. m 3. 8 sq. m
4. 4.5 sq. m 5. 13 sq. m

C. 1. 40 cm 2. 80 cm 3. 160 cm
4. 60 m 5. 48 m

Teacher's Worksheets

Worksheet 1

A. 1. 32 cm 2. 96 km 3. 58 m

B. 1. 11 sq. cm 2. 12 sq. cm

C. 1. 750 cu. cm 2. 42,875 cu. cm
3. 19,080 cu. cm

Worksheet 2

A. 1. 256 sq. cm 2. 650.25 sq. cm

B. 1. 70 sq units 2. 52 sq. units

C. 1. 180 cu. m 2. 2700 cu. cm

Theme 9: From Signs to Signals
Lesson-14: Data Handling

Main Coursebook

I am ready

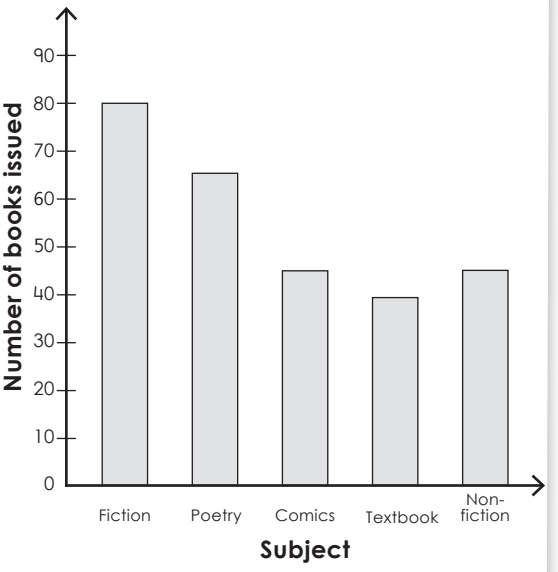
1. July 2. September and June
3. ₹200 4. ₹30 5. ₹15

1.

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

(♥ = 5 students)

2.



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

4.

5. a. Music b. Debating Society
c. Debating Society

6.

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

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

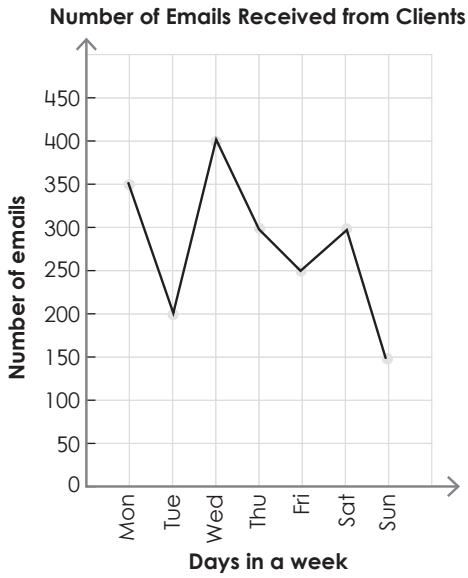
A. 1. b 2. d 3. a 4. c 5. a

A.

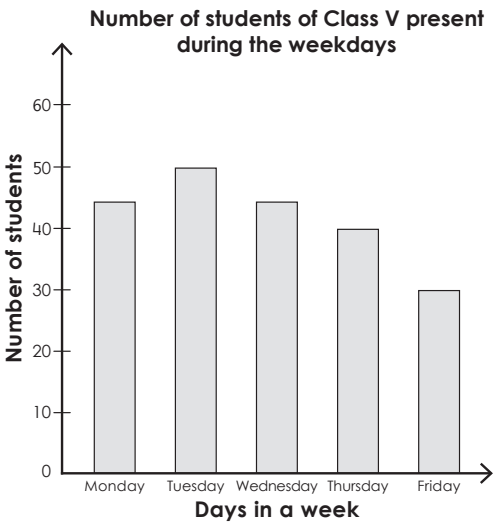
Day	Pictograph
Mon	❖❖❖❖❖❖❖❖
Tue	❖❖❖❖❖❖❖❖❖
Wed	❖❖❖❖❖❖❖
Thurs	❖❖❖
Fri	❖❖❖❖
Sat	❖❖❖❖❖❖❖❖❖❖
Sun	❖❖❖❖❖❖❖❖❖❖❖

(❖ = 5 students)

B.



E.



E. a. VIII b. 45 c. 145
d. III, IV, VI e. V

F. a. Tuesday b. 40 c. Friday d. 50

G. Try yourself

I am a doer:

a. Encourage the section that read fewer books

I am an all-rounder

A. **English:**

1. Jessica scored the highest marks among the four.
2. Ganesh's marks is lesser than Tina's and Jessica's.

B. **Science:**

1. Face-unlock mobiles. They can unlock a mobile phone by recognising a person's face.
2. 56. This shows that AI is becoming an important part of daily life and is widely used in homes for convenience, learning, and safety.

C. **Social Studies:**

1. Phone calls on mobiles are used by the most families. They are quick and easy to use.
2. Difference = 14 families. This shows a shift towards faster, instant communication.

Students' Worksheets

Worksheets 1

A.

Vehicle Type	Tally marks	Number of vehicles
car	𝍸 𝍸	10
bus	𝍸 𝍸 |	25
motorcycle	𝍸 𝍸 𝍸 𝍸	40
bicycle	𝍸 𝍸 𝍸 |	22
truck	𝍸 𝍸	35

1. motorcycle 2. 22
3. car and bus 4. 15 5. 132

B. 1. cricket 2. 30
3. football and basketball
4. 30 5. 25

Worksheet 2

1. c. 2. b. 3. b. 4. b.
5. b. 6. b. 7. a. 8. a.

Worksheet 3

1. 25 2. Thursday 3. 55
4. 95 5. 15 6. 45
7. 33 8. 110

Worksheet 4

1. The temperature decreased by 4°C from Monday to Tuesday.
2. Tuesday recorded the lowest temperature of the week.
3. The total of all seven days' temperatures is 208°C.
4. The difference between the highest and lowest temperatures of the week is 15°C.
5. Saturday recorded the highest temperature of the week.
6. The temperature decreased by 9°C from Saturday to Sunday.
7. Wednesday's temperature was 7°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 (₹35 > ₹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.