ANSWERS

Part-1

Chapter 1: Large Numbers Around Us

Let's Recall

1. (*a*) Greatest number: 813, Smallest number: 109
   (*b*) Greatest number: 89423, Smallest number: 100
   (*c*) Greatest number: 67321, Smallest number: 18
   (*d*) Greatest number: 12307, Smallest number: 249
2. Dolly, Pinki, Sonu, Anny, Soham, Raman
3. Costliest: C, Cheapest: B

Think Tank (Page 10)

9643

Think Tank (Page 12)

6210001000

Practice Time 1A

1. (*a*)-(*iv*) (*b*)-(*i*) (*c*)-(*ii*) (*d*)-(*iii*)
2. (*a*) Two crore thirty-five lakh eighty-seven thousand nine hundred fifty-four
   (*b*) Four arab five lakh forty-seven thousand two hundred thirty-eight
   (*c*) Five hundred sixty-seven million eight hundred two thousand nine hundred fifty-six
   (*d*) Six billion eight hundred two million seven hundred seventy-four thousand one hundred fourteen
3. (*a*) 3 × 1000 + 4 × 100 + 5 × 10 + 6
   (*b*) 7 × 1000 + 8 × 100 + 9 × 10 + 6
   (*c*) 9 × 10,000 + 2 × 1000 + 8 × 100 + 7 × 10 + 6
   (*d*) 2 × 100,000 + 3 × 10,000 + 4 × 1000 + 9 × 100 + 0 × 10 + 2
   (*e*) 2 × 1,00,00,000 + 0 × 10,00,000 + 8 × 1,00,000 + 7 × 10,000 + 6 × 1000 + 0 × 100 + 0 × 10 + 5
   (*f*) 8 × 100,000,000 + 7 × 10,000,000 + 6 × 1,000,000 + 2 × 100,000 + 5 × 10,000 + 8 × 1000 + 7 × 100 + 4 × 10 + 3
4. (*a*) Indian number system: 5,64,789; Five lakh sixty-four thousand seven hundred eighty-nine;
   American number system: 564,789; Five hundred sixty-four thousand seven hundred eighty-nine
   (*b*) Indian number system: 38,09,234; Thirty-eight lakh nine thousand two hundred thirty-four;
   American number system: 3,809,234; Three million eight hundred nine thousand two hundred thirty-four
   (*c*) Indian number system: 4,44,92,012; Four crore forty-four lakh ninety-two thousand twelve;
   American number system: 44,492,012; Forty-four million four hundred ninety-two thousand twelve
   (*d*) Indian number system: 52,24,58,923; Fifty-two crore twenty-four lakh fifty-eight thousand nine hundred twenty-three;
   American number system: 522,458,923; Five hundred twenty-two million four hundred fifty-eight thousand nine hundred twenty-three
5. (*a*) Greatest number: 9876 Smallest number: 6789
   (*b*) Greatest number: 8530 Smallest number: 3058
   (*c*) Greatest number: 964 Smallest number: 469
   (*d*) Greatest number: 932 Smallest number: 239
6. 97,405
7. (*a*) 602,006,602 (*b*) 83,000,000 (*c*) 400,400,400
   (*d*) 999,909,099 (*e*) 2,000,365,073

Practice Time 1B

1. (*a*) 54.9 years (*b*) 26 years (*c*) Sorghum
2. 22nd December 2025 3. 5871 coins
4. (*a*) 8 times (+1000) + 3 times (+100)
   (*b*) 5 times (+1000) + 4 times (+100) + 7 times (+10)
   (*c*) 5 times (+10000) + 5 times (+1000) + 5 times (+100) + 5 times (+10) + 5 times (+1)
   (*d*) 3 times (+100000) + 6 times (+10000) + 7 times (+1000) + 8 times (+100) + 13 times (+1)
   (*e*) 36 times (+1000)
   (*f*) 1 time (+1000000) + 8 times (+10) (Answer may vary)
5. 500 trees 6. 17 days 7. (*a*) 960
   (*b*) Yes; 9 times (+100) + 8 times (+10) + 17 times (+1) (Answer may vary)
8. (*a*) 5 times (+1000) + 7 times (+10) + 2 times (+1) = 14 button presses
   (*b*) 4 times (+1000) + 10 times (+100) + 6 times (+10) + 12 times (+1) = 32 button presses (Answer may vary)
9. 2212 floors
10. (*a*) Ascending order: 334, 445, 456, 673, 784, 982;
    Descending order: 982, 784, 673, 456, 445, 334
    (*b*) Ascending order: 4367, 4458, 4678, 4789, 6580, 7409;
    Descending order: 7409, 6580, 4789, 4678, 4458, 4367
    (*c*) Ascending order: 2345, 4587, 5012, 5072, 5555, 7777, 8010;
    Descending order: 8010, 7777, 5555, 5072, 5012, 4587, 2345
    (*d*) Ascending order: 29,102, 30,829, 44,408, 65,201, 77,645, 80,324;
    Descending order: 80,324, 77,645, 65,201, 44,408, 30,829, 29,102
11. In the leftmost place (Ten thousands place)

Practice Time 1C

1. (*a*) 660 (*b*) 979 (*c*) 1200 (*d*) 3100
   (*e*) 28,000 (*f*) 2,20,000 (*g*) 45,75,000 (*h*) 1,91,150
   (*i*) 9016 (*j*) 704 (*k*) 3978 (*l*) 2024
2. 148016

Fast Check (Page 23)

FORTY

Think Tank (Page 23)

One billion *i.e.*, 1,000,000,000

Practice Time 1D

1. (*a*) Nishtha is correct. (*b*) The sum is greater than 8,50,000.
   (*c*) 8,82,810
2. 1,11,000 m
3. 42,000
4. A: 20 kg, B: 50 kg, C: 80 kg
   Exact payment: P = ₹2400; Q = ₹3000
   Estimated payment: P = ₹2000; Q = ₹4000
5. (*a*) The difference is greater than 9,50,000.
   (*b*) Nitya
6. 6,30,00,000
7. (*a*) Flags A and B (*b*) Flags C and D
8. Estimated value: 10; Actual value: 10.42
   Estimated to the nearest ten: 10.5;
   Estimated to the nearest hundred: 9.83
9. Yes 10. 50 pencils 11. 6000 books
12. 800 pancakes 13. Yes

Chapter Assessment

A. 1. (*a*) 2. (*b*) 3. (*a*) 4. (*b*) 5. (*b*)
B. 1. (*c*) 2. (*a*) 3. (*a*)
C. 1. 5,00,000 2. 3162 3. 85700 4. 4 × 100
5. 7
D. 1. 2223; 2942 2. 78 statues 3. 749 4. 9876567
5. 0 6. 2, 4, 5, 7, 8
7. (*a*) 2 times (+10000) + 8 times (+100)
   (*b*) 9 times (+10000) + 3 times (+1000) + 4 times (+100) + 2 times (+10)
   (*c*) 1 times (+100000) + 2 times (+10000) + 4 times (+100) + 9 times (+10) + 3 times (+1)
   (*d*) 7 times (+1000000) + 2 times (+10000) + 5 times (+1000) + 6 times (+100) + 5 times (+10) + 4 times (+1)

(*e*) 6 times (+1000) + 5 times (+100) + 3 times (+10)
(*f*) 1 time (+10000) + 2 times (+1000) + 3 times (+100) + 4 times (+10) + 6 times (+1)
(*g*) 7 times (+10000) + 2 times (+100) + 4 times (+10) + 5 times (+1)
(Answer may vary)

8. (*a*) 13000 × 20 – 70000
(*b*) 70000 × 5 + 150000 + 4000 × 20
(*c*) 70000 × 20 – 150000 – 4000
(*d*) 4000 × 150000 ÷ 300 + 70000 + 13000 + 20 × 5
(Answer may vary)

Challenge Question (Page 27)

29 (TWENTY NINE)

Mental Maths (Page 27)

1. 1 **2.** 98765 **3.** 100
4. (*a*) 2400 (*b*) 495 (*c*) 3024
5. (*a*) 11,000 (*b*) 83,000

Chapter 2: Arithmetic Expressions

Let's Recall

1. (*c*) **2.** (*b*) **3.** (*a*)

Fast Check (Page 31)

88 tomatoes

Fast Check (Page 32)

(*i*) < (*ii*) > (*iii*) =

Think Tank (Page 32)

(1023 + 125) < (1022 + 128)

Practice Time 2A

1 (*a*) 8 + 9 (*b*) 7 × 6 (*c*) 24 ÷ 4 (*d*) 9 – 3
(*e*) (8 × 10) + 4 (*f*) (12 ÷ 4) + 8 (*g*) 12 + 39 (*h*) 34 – 9
(*i*) 87 + 56 + 98 + 100 (*j*) (45 + 35) ÷ 5

2. (*a*) 7 is added to the sum of 4 and 5
(*b*) Subtract 7 from the product of 2 and 9
(*c*) Multiply 12 by 4, and then divide the result by 3
(*d*) Multiply the product of 5 and 10

3. (*a*) 14 (*b*) 14 (*c*) 8 (*d*) 32
4. 10 × 12 – 6 **5.** ₹(45 × 2) × 28 **6.** 483 × 32
7. (*a*) > (*b*) = (*c*) < (*d*) < (*e*) <
8. (*c*) < (*b*) < (*e*) < (*d*) < (*a*)

Fast Check (Page 35)

Expression	Expression as the sum of its terms	Terms
13 – 2 + 6	13 + –2 + 6	13, –2, 6
5 + 6 × 3	5 + 6 × 3	5, 6 × 3
4 + 15 – 9	4 + 15 + –9	4, 15, – 9
23 – 2 × 4 + 16	23 + –2 × 4 + 16	23, –(2 × 4), 16
28 + 19 – 8	28 + 19 + –8	28, 19, –8

Practice Time 2B

1. (*a*) 13, –17, –12; 13 + (–17) + (–12)
(*b*) –10, 11, –13; –10 + 11 + (–13)
(*c*) 29, –11, 4 × 5; 29 + (–11) + 4 × 5
(*d*) 14, –3 × 4, 10; 14 + (–3 × 4) + 10
(*e*) 12 ÷ 3, –2 × 3, 5; (12 ÷ 3) + (–2 × 3) + 5
(*f*) –18 × 3, 27 ÷ 9, –4; (–18 × 3) + (27 ÷ 9) + (–4)
(*g*) 49, –7 × 8, 12; 49 + (–7 × 8) + 12
(*h*) 112 ÷ 4, 34 × 12; (112 ÷ 4) + (34 × 12)
(*i*) 1, –2, 3, –5 × 6, 7; 1 + (–2) + 3 + (–5 × 6) + 7

2. (*a*) 84 (*b*) 126 (*c*) 62 (*d*) 3 (*e*) 78
(*f*) 13 (*g*) –2 (*h*) 23 (*i*) 9

3. Expression = $\frac{(10\times2)}{4}$, Terms = $\frac{(10\times2)}{4}$, Number of pizzas = 5

4. Expression : (200 ÷ 5) + 6; Terms: (200 ÷ 5), 6; Number of 5 kg packets = 46

5. 76 **6.** 31 Students **7.** ₹10,510

8. $(1{,}00{,}000 \times 2) + \left(\frac{1{,}00{,}000}{2}\right)$ = ₹2,50,000

Math Connect (Page 38)

People who did not cast their votes = 2,00,000 – (52,496 + 44,929 + 36,824 + 10,050); 55,701

Fast Check (Page 40)

(*a*) 1274 (*b*) 918

Practice Time 2C

1. (*a*) Commutative Property of Multiplication
(*b*) Associative Property of Addition
(*c*) Commutative Property of Multiplication
(*d*) Commutative Property of Addition
(*e*) Associative Property of Addition
(*f*) Commutative Property of Multiplication
(*g*) Distributive Property of Multiplication over Addition
(*h*) Distributive Property of Multiplication over Subtraction

2. (*a*) 2 (*b*) – (*c*) 3, +, 8 (*d*) +, 4 (*e*) 6, ×, ×, 4
(*f*) 11, 6 (*g*) 5, 2 (*h*) 6, 3, 4 (*i*) 2 (*j*) 7

3. (*a*) 3696 (*b*) 1872 (*c*) 7448 (*d*) 4896
(*e*) 2499 (*f*) 253238 (*g*) 4410 (*h*) 9021

4. (*a*) 1504 (*b*) 1554 (*c*) 814 (*d*) 864

5. 90, Associative Property of Addition **6.** 12,000

7. 924 kg, Distributive Property of Multiplication over Addition

Mental Maths (Page 42)

1. (*a*) 123 – 45 – 67 + 89 = 100
(*b*) (9 × 8) + 7 + 6 + 5 + 4 + 3 + 2 + 1 = 100

2. (*a*) 4 × (5 + 1) = 24 (*b*) 2 × (3 + 9) = 24
(*c*) 3 × (2 + 6) = 24 (*d*) 4 × (4 + 2) = 24

Chapter Assessment

A. **1.** (*b*) **2.** (*c*) **3.** (*b*) **4.** (*a*) **5.** (*c*)
B. **1.** (*a*) **2.** (*a*) **3.** (*d*)
C. **1.** 348, 823 **2.** 375, 234 **3.** 138
4. 234, 266, 767 **5.** 58, 28 **6.** 1298, 4576
D. **1.** False **2.** False **3.** False **4.** False **5.** True
E. **1.**→(*iv*) **2.**→(*v*) **3.**→(*i*) **4.**→(*iii*) **5.**→(*ii*)
F. **1.** (*a*) 341 (*b*) 80 (*c*) 1824 (*d*) 532
2. (5 × 5 + 5) ÷ 5 = 6, 5 + (5 + 5) ÷ 5 = 7, 5 + 5 – 5 ÷ 5 = 9,
(5 ÷ 5) × (5 + 5) = 10 (Answer may vary)
3. (146 + 148) ÷ 3
4. 2 × 3, –3 × 4, 4 × 5, –5 × 6, 6 × 7, –7 × 8, 8 × 9, –9 × 10; –48
5. 37 years, 28 + 3 + 3 + 3
6. Muskan: 4 steps, Shrija = 4 steps; Yes
7. 2 × (4 + 7 + 7 + 4) + 2 × (7 + 4 + 4 + 7) , 8 × 4 + 8 × 7, 88
8. (*a*) (2 × 120) + (3 × 80) + 250 (*b*) ₹630 (*c*) ₹785

Challenge Question (Page 45)

[(100 – 4) × 5] ÷ (4 – 2), 122 steps

Chapter 3: A Peek Beyond the Point

Let's Recall

1. (*a*) $\frac{4}{10}$ (*b*) $\frac{40}{100}$ (*c*) $\frac{400}{1000}$

2. (*a*) 100 (*b*) 24 (*c*) 1000 (*d*) 10 (*e*) 8 (*f*) 9

Fast Check (Page 48)

5.8 cm

Practice Time 3A

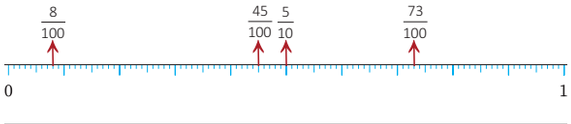
1. (*a*) 3 cm (*b*) 5.3 cm (*c*) 9.1 cm (*d*) 8.5 cm

2. (*a*) $2\frac{9}{10}, 3\frac{2}{10}, 3\frac{5}{10}, 3\frac{8}{10}$ (*b*) $5\frac{3}{10}, 4\frac{2}{10}, 3\frac{1}{10}, 2$
(*c*) $4\frac{9}{10}, 4\frac{5}{10}, 4\frac{1}{10}, 3\frac{7}{10}$ (*d*) $9\frac{7}{10}, 10\frac{2}{10}, 10\frac{7}{10}, 11\frac{2}{10}$

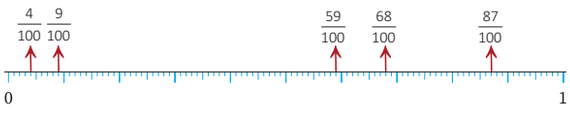
3. (*a*) Twenty-three tenths (*b*) Three and four tenths
(*c*) Five and eighty-three hundredths (*d*) Four and fifty-six hundredths
(*e*) Three and eight hundredths (*f*) Two and forty-six hundredths

4. (*a*) 5.9 cm (*b*) 5 cm (*c*) 2.5 cm (*d*) 3.3 cm

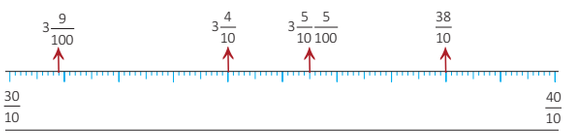
5. (*a*)



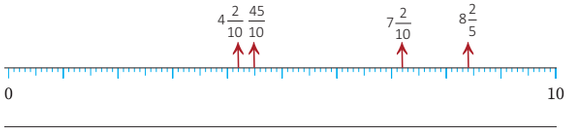
(*b*)



(*c*)



(*d*)



6. $\frac{55}{100}, \frac{156}{100}, \frac{174}{100}, \frac{202}{100}, \frac{24}{10}$

7. (*a*) $\frac{4}{10}, \frac{43}{100}, \frac{76}{100}, \frac{9}{10}, 7\frac{6}{10}, 9$ (*b*) $\frac{76}{100}, 6\frac{7}{10}, 7\frac{6}{10}, 8\frac{2}{5}, 11\frac{2}{8}$

(*c*) $\frac{3}{10}, 3\frac{5}{10}, 4\frac{2}{100}, 6\frac{7}{10}, 8\frac{6}{10}, \frac{87}{10}$

(*d*) $\frac{67}{100}, 1\frac{8}{10}, \frac{20}{10}, 3\frac{5}{10}, 5\frac{6}{10}, 6\frac{2}{100}$

8. (*a*) $\frac{89}{10}, 7\frac{5}{10}, 6\frac{2}{10}, 3\frac{75}{100}, 3\frac{3}{10}, \frac{3}{10}$ (*b*) $14, \frac{130}{10}, 12\frac{9}{10}, \frac{127}{10}, 12\frac{3}{5}$

(*c*) $8\frac{6}{100}, \frac{73}{10}, 4\frac{7}{10}, 4\frac{2}{100}, 1\frac{5}{10}, \frac{13}{10}$ (*d*) $7\frac{8}{100}, 5\frac{6}{100}, 4\frac{7}{10}, \frac{46}{10}, 4, 2\frac{3}{5}$

9. (*a*) $5\frac{62}{100}$ (*b*) $1\frac{87}{100}$ (*c*) $31\frac{2}{10}$ (*d*) $25\frac{52}{100}$

(*e*) $61\frac{78}{100}$ (*f*) $18\frac{39}{100}$

10. (*a*) $6\frac{83}{100}$ (*b*) $1\frac{81}{100}$ (*c*) $3\frac{4}{10}$ (*d*) $12\frac{67}{100}$

(*e*) $8\frac{13}{100}$ (*f*) $11\frac{23}{100}$

11. $6\frac{3}{10}$ units **12.** $133\frac{4}{10}$ units **13.** $2\frac{1}{10}$ cm **14.** $9\frac{1}{10}$ feet

Practice Time 3B

1. (*a*) 6 (*b*) 2 (*c*) 5 **2.** 3 **3.** 7

4. 243.25; $243\frac{25}{100}$ **5.** Seven hundredths **6.** 8

7. (*a*) One hundred twenty-four and one hundred twenty-three thousandths
(*b*) Twelve and three thousand two hundred fourteen ten-thousandths
(*c*) Zero and three hundred sixty-three thousandths
(*d*) Zero and two thousandths
(*e*) Thirty-four and five hundred seventy-eight thousandths
(*f*) Two hundred thirty-one and two hundred fifty-eight-ten thousandths
(*g*) One and twenty-five thousandths
(*h*) Twelve and thirty-four ten-thousandths
(*i*) Two and one ten-thousandth
(*j*) One hundred twelve and twenty-one thousandths

8. (*a*) 13,000 (*b*) 20.06 (*c*) 235.060 (*d*) 3022.0004
(*e*) 1000.3 (*f*) 6.7 (*g*) 420.008 (*h*) 75.030
(*i*) 4.071

9. (*a*)

(*b*)

(*c*)

(*d*)

(*e*)

10.

	Hundreds (100)	Tens (10)	Ones (1)	Point (.)	Tenths $\frac{1}{10}$	Hundredths $\frac{1}{100}$	Thousandths $\frac{1}{1000}$	Ten thousandths $\frac{1}{10000}$
(*a*)	2	3	4	.	5	6	7	8
(*b*)		4	5	.	6	0	9	
(*c*)			0	.	0	0	3	4
(*d*)		9	1	.	0	2	8	6
(*e*)	7	9	8	.	3	4	0	1

11.

	Hundreds (100)	Tens (10)	Ones (1)	Point (.)	Tenths $\frac{1}{10}$	Hundredths $\frac{1}{100}$	Thousandths $\frac{1}{1000}$
(*a*)			2	.	3	0	4
(*b*)			0	.	9	8	
(*c*)			4	.	0	0	6
(*d*)	7	8	4	.	5	7	
(*e*)			0	.	0	5	
(*f*)			3	.	4	0	5
(*g*)			7	.	0	0	7

Think Tank (Page 67)

₹1898.5

Practice Time 3C

1. (*a*) 0.38 (*b*) 0.42 (*c*) 0.26
2. (*a*) 0.32 (*b*) 1.432 (*c*) 5.69 (*d*) 2.32
(*e*) 1.030 (*f*) 0.42
3. (*a*) 0.06 m (*b*) 0.04 m (*c*) 45000 m (*d*) 0.164 m
4. (*a*) 4.329 km (*b*) 0.00034 km (*c*) 8.802 km (*d*) 0.02025 km
5. (*a*) 0.750 kg (*b*) 4.080 kg (*c*) 2.009 kg (*d*) 1.298 kg
6. (*a*) ₹7.25 (*b*) ₹3.59 (*c*) ₹0.30 (*d*) ₹0.05
7. (*a*) 28.68054 (*b*) 327.810 (*c*) 4804.84 (*d*) 0.9770
(*e*) 7.32 (*f*) 43.5322
8. (*a*) 2 kg 840 g (*b*) ₹19.49 (*c*) 3.21 km (*d*) 26.26
(*e*) 1.793 kg (*f*) 47.55 m
9. ₹388.78 **10.** 9.85 km or 9850 m **11.** 12 kg 875 g
12. (*a*) 4.0, 4.25, 4.5 (*b*) 9.5, 9.7, 9.9
(*c*) 17, 18.5, 20 (*d*) 1.61, 1.69, 1.77

Chapter Assessment

A. 1. (*b*) **2.** (*d*) **3.** (*b*) **4.** (*b*) **5.** (*c*)
B. 1. (*d*) **2.** (*a*)
C. 1. F **2.** F **3.** T **4.** F **5.** F
D. 1. (*a*) 3.95, 4.7, 5.45 (*b*) 11.2, 12.1, 13 (*c*) 4.3, 4.5, 4.7
(*d*) 6.8, 7.82, 8.84

2. (*a*) $2+\frac{4}{10}+\frac{7}{100}+\frac{8}{1000}$ (*b*) $\frac{3}{10}+\frac{6}{100}+\frac{8}{1000}$

(*c*) $\frac{8}{1000}$ (*d*) $1+\frac{2}{100}+\frac{8}{1000}$

(*e*) $2+\frac{3}{10}+\frac{9}{100}+\frac{1}{1000}$

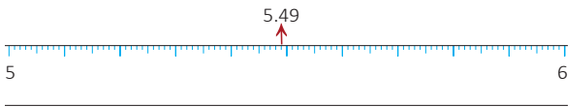
3. (*a*) 0.153, 0.468, 0.721, 0.895, 0.926
(*b*) 2.459, 2.567, 2.678, 2.689, 2.768
(*c*) 0.259, 2.54, 3.05, 5.64, 8.32
(*d*) 0.205, 0.863, 3.81, 5.96, 6.4, 8.14
(*e*) 0.0009, 0.93, 0.96, 6.01

4.

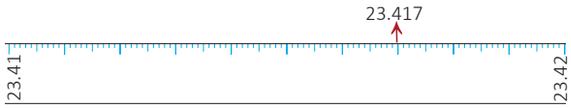
	Hundreds (100)	Tens (10)	Ones (1)	Point (.)	Tenths $\frac{1}{10}$	Hundredths $\frac{1}{100}$	Thousandths $\frac{1}{1000}$	Ten thousandth $\frac{1}{10000}$
(*a*)			3	.	4	5	9	
(*b*)	2	3	4	.	6	7	9	
(*c*)	1	0	8	.	9	8	0	1
(*d*)			0	.	2	0	8	9
(*e*)		3	4	.	9	8	1	

5. (*a*) 34.025 (*b*) 291.30008 (*c*) 0.549 (*d*) 23.072
(*e*) 20.503 (*f*) 328.57

6. (*a*)



(*b*)



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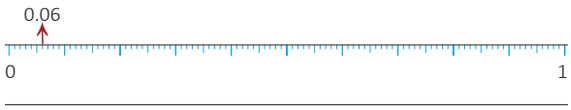
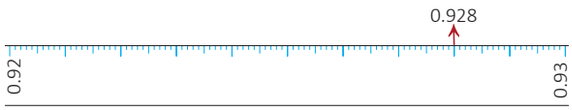
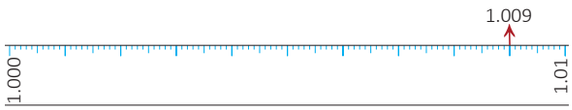


(*d*)



(*e*)



7. (*a*) A = 5.09, B = 5.13, C = 5.2, D = 5.31
(*b*) A = 6, B = 7.5, C = 9.5
(*c*) A = 8.02, B = 8.06
(*d*) A = 4.35, B = 4.5, C = 4.85

8. 3.059

9. (*a*) 33.63 (*b*) ₹134.62 (*c*) ₹4374.01 (*d*) ₹329.48
(*e*) ₹219.08

10. (*a*) 0.9 (*b*) 1.23 (*c*) 0.5 (*d*) 1.490
(*e*) 5.672 (*f*) 3.33

11. ₹$20\frac{9}{100}$ **12.** $\frac{1537}{100}$ m

13. (*a*) 12, 12.9, 13.8 (*b*) 4.85, 4.80, 4.75
(*c*) 10.95, 10.45, 9.95 (*d*) 26, 22.5, 19

14. 3 km 42 m **15.** 18.27 kg **16.** 124.05 km **17.** 11.565 kg

18. $110\frac{5}{100}$ cm or 110.05 cm **19.** 25.148

20. 0.643 + 9.857 = 10.5

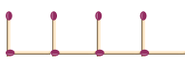
Challenge Question (Page 73)

62.38

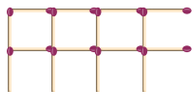
Chapter 4: Expressions using Letter-Numbers

Let's Recall

1. (*a*)



(*b*)



2. (*a*) 3 (*b*) 52 (*c*) 2 (*d*) 47
(*e*) 50 (*f*) 46

Fast Check (Page 80)

$x + 2p - 13$

Practice Time 4A

1.

$t-10$	$t-9$	$t-8$	$t-7$
$t-3$	$t-2$	$t-1$	t

, $8t - 40$

2. $5 + 4(n - 1)$; n is the number of pentagons
3. $4p$, perimeter = 28 cm

4. (*a*) $p + 7$ (*b*) $q - 7$ (*c*) $6p$ (*d*) $\frac{s}{9}$
(*e*) $-p - 7$ (*f*) $-tn$ (*g*) $2n + 11$ (*h*) $5y - 3$

6. (*a*)→(*iv*) (*b*)→(*i*) (*c*)→(*ii*) (*d*)→(*iii*)

7. (*a*) True (*b*) False (*c*) False

8. $9r$ (*a*) 90 dots (*b*) 108 dots (*c*) 180 dots

9. $2p + 10$ **10.** Remaining *laddoos* = $p - 61$ **11.** $6x + 50$

12. $\left(\frac{2}{3}\right)x + 15$

Fast Check (Page 84)

1. 14 **2.** 6

Practice Time 4B

1. (*a*) $9x + 6$ (*b*) $2x + 5y + 5$ (*c*) $a - 28b + 16$
(*d*) $17m + 23n - 10p + 35$ (*e*) $-2x + 5y$

2. $6x + 2$, 8 **3.** $4x + 33$

4. (*a*) $4t + 15$ (*b*) 39 minutes

5. (*a*) 13 (*b*) $\frac{29}{4}$ (*c*) 80

6. $6x + 22$, 40 units

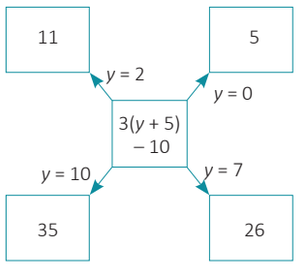
7. (*a*) 10 (*b*) $\frac{53}{24}$ (*c*) 11

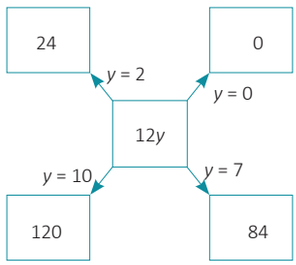
8. (*a*) $5x - 13$; -3 (*b*) $11x - 10$; 12 (*c*) $11x + 7$; 29

9. (*a*) $16p + 20q + 2$ (*b*) $84k - 28g$

10. (*a*) $3x + 5y - 2z$ (*b*) $3 + 6z$ (*c*) $-2x + 4y + 4z$
(*d*) $10a + 15b + 20c$ (*e*) $6 + m$ (*f*) $3(j + 2k + 3h + 4)$
(*g*) $20 - 15a - 10b$

Maths Fun (Page 85)





Fast Check (Page 86)

$11x$, $-24x$, x; $-24y$, $11y$, y; 11, -24, 1

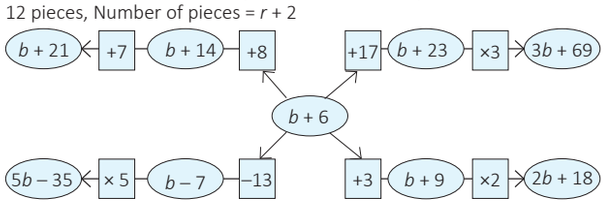
Mental Maths (Page 91)

1. $3y - 6$ **2.** 14 **3.** $11x + 7$ **4.** $ab + 7$
5. 28

Practice Time 4C

1. (*a*) $28p + 6q$ (*b*) $3a + 15b + 16c$ (*c*) $6mn - 4t$
(*d*) $6u$ (*e*) $8xyz - 8xy$ (*f*) $11ab - 5kl + 5xy$
(*g*) $-2ab + 8cd$ (*h*) $-11p + 15q + 5r$

2. (*a*) $14x - 7y - 38$ (*b*) $-2p - 2q + 2$ (*c*) $2m - 8n$ (*d*) $-7y + 5z$
(*e*) $-3a - 3b - 32$ (*f*) $-16g + 3h + 30$ (*g*) $-ac - bd - cd$ (*h*) $a - b + 6c$
3. (*a*) $-10x - 11y + 12z$ (*b*) $2p + 6$ (*c*) $3m + 3n + 15$
(*d*) 4 (*e*) $4a + 5b + 10$ (*f*) $21m - 20n + 5$ (*g*) $127x - 315$
(*h*) $7x - 3y - 3$ (*i*) $p + 21q$
4. (*a*) $a + b - 2$ (*b*) 31, $ab + 1$
5. 90th position: Yellow; 190th position: Red; 343rd position: Red
6. 12 pieces, Number of pieces = $r + 2$
7.

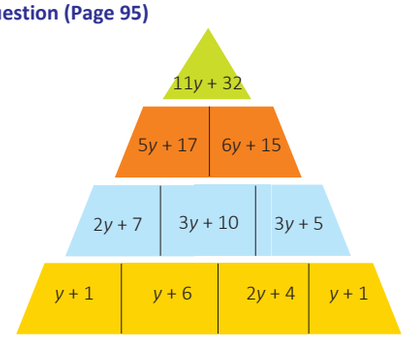


8. $4n - 2$ **9.** $3n$ **10.** (*a*) $7m + 19$ (*b*) Rahul

Chapter Assessment

A. 1. (*b*) **2.** (*a*) **3.** (*b*) **4.** (*a*) **5.** (*b*)
B. 1. (*a*) **2.** (c)
C. 1. $7n$ **2.** coefficient **3.** $3p + 7$ **4.** $4p$ **5.** 5
D. 1. $3b - 4$ **2.** $(5v + 45)$km
3. (*a*) (*i*) $y + 5$ (*ii*) $y - 3$ (*b*) $3y + 5$
4. (*a*) ₹750 (*b*) ₹1650 (*c*) ₹2850
5. (*a*) $4m - 15$ (*b*) $36k + 8$ (*c*) $14x + 7$ (*d*) $7a - 20$
(*e*) $-11m - 41n + 50$ (*f*) $18p - 17$
6. 38th step = 77 matchsticks, 89th step = 179 matchsticks, 107th step = 215 matchsticks
7. Beena = $s + 8$, Sakina = $s - 7$, Total = $4s - 10$ **8.** $50p - 1800$
9. $10(2r + b)$
10. (*a*) $15b + 20k$ (*b*) $10b + 15k$ (*c*) ₹2400
(*d*) 150 bookmarks

Challenge Question (Page 95)



Maths Connect (Page 96)

(*a*) $22x + 60y$ (*b*) $8x + 14y$

Unit Test – 1

A. 1. (*a*) **2.** (*c*) **3.** (*d*) **4.** (*c*) **5.** (*b*)
6. (*b*) **7.** (*d*) **8.** (*a*) **9.** (*c*) **10.** (*b*)
B. 1. 18,000 **2.** $5 \times (9 + 6)$ **3.** 10,000 **4.** 14.5
5. 700 **6.** 9
C. 1. T **2.** T **3.** F **4.** T **5.** T **6.** F
D. 1. 256 days; Yes, he can reach within a year.
2. $(9 \times 1000) + (3 \times 100) + (4 \times 10) = 9340$, $(93 \times 100) + (40 \times 10) = 9340$ (Answer may vary)
3. (*a*) 10,500 (*b*) 4,00,000
4. Monthly savings = ₹18,000 – ₹(6,000 + 4,000 + 3,000), Savings in 10 months = ₹50,000
5. 1.15 kg **6.** 11.59 L **7.** Expression: $12a + 6b$; ₹90
8. $(84 + 21t)$ km

Chapter 5: Parallel and Intersecting Lines

Let's Recall

2. *a*, *d* **3.** *c*

Practice Time 5A

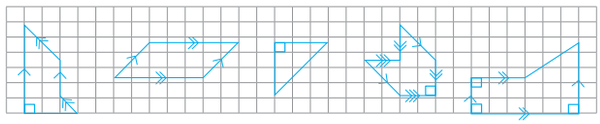
1. At a door hinge, On a straight road at a crosswalk, At the corner of a book or a table
2. (*a*) $\angle 1$ and $\angle 5$, $\angle 4$ and $\angle 5$ (*b*) $\angle 1$ and $\angle 4$
3. $a = 104°$, $b = 76°$
4. 122° **5.** $x = 112°$, $y = 68°$ **6.** 20°
7. 19 **8.** 30° **9.** 16° **10.** 39°

Fast Check (Page 107)

(*a*) Corresponding angles (*b*) Alternate interior angles
(*c*) Co-interior angles (*d*) Corresponding angles
(*e*) Alternate interior angles (*f*) Linear pair

Practice Time 5B

1.



(*a*) To spot perpendicular lines, observe if lines intersect at 90° angle.
(*b*) To spot parallel lines, observe if lines never intersect at any point.
2. $a \parallel b$ and $c \parallel d$
3. (*a*) Corresponding angles for a pair of parallel lines
(*b*) Alternate interior angles for a pair of parallel lines
(*c*) Co-interior angles are supplementary for a pair of parallel lines
4. 80°
5. $x = 125°$, $y = 125°$ **6.** $a = 50°$, $b = 130°$ **7.** 108°
9. 180° **10.** $\angle GEH = 45°$, $\angle HEF = 57°$, $\angle FED = 78°$

Challenge Question (Page 111)

1. (*a*) A, L (*b*) H (*c*) W, E (*d*) L
2. 730° **3.** 145°

Mental Maths (Page 112)

1. 180° **2.** 45° **3.** Two pairs **4.** 20

Chapter Assessment

A. 1. (*b*) **2.** (*d*) **3.** (*a*) **4.** (*c*)
5. (*b*) **6.** (*b*)
B. 1. (*a*) **2.** (*b*)
C. 1. transversal **2.** 180° **3.** arm **4.** equal
D. 1. (*a*) 60° (*b*) $a = 120°$, $b = 60°$, $c = 60°$, $d = 120°$
2. $x = 80°$, $y = 100°$, $z = 40°$ **3.** 245°
4. $x = 130°$, $y = 50°$ **5.** 78° **6.** 90°
7. (*a*) Alternate interior/exterior angles, Corresponding angles, Vertically opposite angles, Linear pairs
(*b*) 75°
(*c*) If the roads were not parallel, the corresponding angles would no longer be equal.

Chapter 6: Number Play

Let's Recall

1. $12 \times (20 + 40 + 80) = 1680$ (Answer may vary)
3. $2 \times 30000 + 8 \times 3000 + 8 \times 300 = 86400$ (Answer may vary)
4. Smallest = 149; Greatest = 950

Fast Check (Page 119)

Odd, $n = 1$ (Answer may vary)

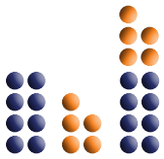
Practice Time 6A

2. No
3. 1, 3, 5, 7, 7, 7; 3, 3, 5, 5, 7, 7 (Answer may vary)
4. $1 + 3 + 5 + 7 + 9 = 5 \times 5$; $1 + 3 + 5 + 7 + 9 + 11 + 13 = 7 \times 7$; $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19 + 21 + 23 + 25 + 27 + 29 = 15 \times 15$
5. (*a*) Even (*b*) Even (*c*) Even (*d*) Odd
(*e*) Even **6.** No
7. Yes, their claim is correct. If Nishtha is 11 years old and Nilabh is 16 years old, then next year their ages will add up to 29.
8. (*a*) Odd (*b*) Even (*c*) Odd (*d*) Even
9. (*a*) Even (*b*) Odd (*c*) Even (*d*) Even
10. (*a*) The parity is odd when *m* is even and vice versa.
(*b*) The parity is always odd. (*c*) The parity is always odd.
(*d*) The parity is even when *s* is odd and vice versa.

11. (*a*)

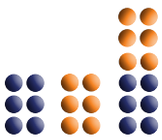
Even – Odd = Odd

(*b*)



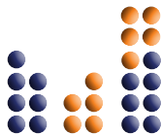
Even + Odd = Odd

(*c*)



Even + Even = Even

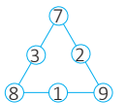
(*d*)



Odd + Odd = Even

12. Odd

Think Tank (Page 123)



(Answer may vary)

Think Tank (Page 127)

A = 2 and B = 5

Practice Time 6B

1. (*a*)

9	2	7
4	6	8
5	10	3

(*b*)

13	6	11
8	10	12
9	14	7

(*c*)

15	8	13
10	12	14
11	16	9

2.

$m+3$	$m-4$	$m+1$
$m-2$	m	$m+2$
$m-1$	$m+4$	$m-3$

28	21	26
23	25	27
24	29	22

3.

23	16	21
18	20	22
19	24	17

4. (*a*) Yes, this is a pan magic square.

5. 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233

6. (*i*) 13 (*ii*) 21 (*iii*) 34

7. (*a*) Y = 9, O = 0, T = 1 (*b*) A = 7, B = 0, C = 1
(*c*) K = 6, P = 1, R = 2 (*d*) D = 9, F = 0

8. 2584, 4181; 377, 610

9.

2	3	4	*o*
8	7	5	*e*
e	*e*	*o*	

(Answer may vary)

10. (*a*)

0	5	–2
–1	1	3
4	–3	2

(*b*)

–7	0	–5
–2	–4	–6
–3	–8	–1

(*c*)

–2	3	–4
–3	–1	1
2	–5	0

Challenge Question (Page 130)

1. A = 8, B = 7, C = 5, G = 6, I = 3, L = 1, N = 0, O = 2, T = 4

2. B = 4, D = 1, E = 8, K = 6, N = 2

Chapter Assessment

A. 1. (*c*) **2.** (*c*) **3.** (*a*) **4.** (*d*) **5.** (*d*)

B. 1. (*a*) **2.** (*c*)

C. 1. 1 **2.** odd **3.** 7 **4.** 15*k* **5.** 144

D. 1. 1999

2. (*a*) A = 3, B = 9 (*b*) A = 7 ,B = 2
(*c*) A = 3, B = 8 , C = 2 (*d*) A = 6, B = 5, C = 4

3.

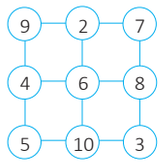
110	103	108
105	107	109
106	111	104

4.

–15	13	11	–9
7	–5	–3	1
–1	3	5	–7
9	–11	–13	15

5. 34 different ways

6.



7.

8	1	6
3	5	7
4	9	2

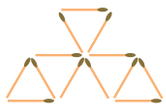
Chapter 7: A Tale of Three Intersecting Lines

Let's Recall

1. (*a*) Triangle (*b*) 3, 3 (*c*) 180° (*d*) scalene
(*e*) sides, angles

2. 11

3.



Fast Check (Page 137)

1. 40° **2.** Scalene and right-angled triangle

3. Equilateral and acute-angled triangle **4.** 45° each

Practice Time 7A

1. (*a*) No (*b*) Yes

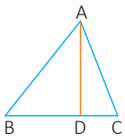
2. Third side should fall between 3 cm and 27 cm. **4.** Yes

Think Tank (Page 147)

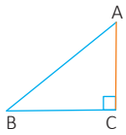
Yes

Fast Check (Page 148)

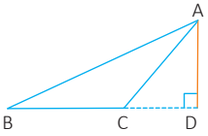
1.



2.



3.



Think Tank (Page 149)

No, it cannot be a straight angle.

Practice Time 7B

1. (*a*) 40° (*b*) 60° (*c*) 70° **2.** 100°

3. (*a*) $x = 70°, y = 60°$ (*b*) $x = 50°, y = 80°$ (*c*) $x = 110°, y = 70°$

4. 90° **5.** 50°, 60°, 70° **6.** 65°, 65° **7.** 90°

8. 76°, 44°, 60° **9.** $x = 90°, y = 105°$ **10.** 360°

11. (*a*) *Yes*, 60°, 90° (*b*) *Yes*, 55°, 55° (*c*) *Not* possible
(*d*) Yes, 16°, 20° (Answer may vary)

12. (*a*) 72° (*b*) 15° (*c*) 60° (*d*) 60°

Chapter Assessment

A. 1. (*c*) **2.** (*d*) **3.** (*c*) **4.** (*d*)
5. (*b*) **6.** (*b*) **7.** (*a*)

B. 1. 55°, 55° **2.** obtuse **3.** orthocentre **4.** one

C. 1. F **2.** F **3.** T **4.** F

D. 1. (*c*) **2.** (*d*)

E. 1. 139°

2. A triangle with these side lengths cannot be formed.

3. Minimum value is 4 cm and maximum value is 16 cm.

4. 45°, 60°, 75° **5.** 74°, 60°, 46°

11. (*a*) 100° (*b*) 90° (*c*) 35° (*d*) 40°

12. (*a*) 60°, All sides and angles are equal
(*b*) 50°, 50° (*c*) 180°, Angle sum property of triangles.
(*d*) Teamwork, unity

Challenge Question (Page 155)

1. $x = 40°$, $y = 55°$, $z = 85°$
2. 35°, 50°, 90°; Exterior angles = 145°, 130°, 85°
3. $x = 21°$, $y = 38°$

Mental Maths (Page 156)

1. Right-angled triangle **2.** 60° **3.** 60° **4.** 110°

Chapter 8: Working with Fractions

Let's Recall

1. (*a*) $\frac{3}{6}$ (*b*) $\frac{6}{8}$ (*c*) $\frac{3}{7}$ (*d*) $\frac{3}{7}$

2. (*a*) $\frac{1}{3}$ (*b*) $\frac{1}{4}$ **3.** (*a*) 8 oranges (*b*) 10 apples

4. (*a*) $\frac{11}{12}$ (*b*) $\frac{1}{2}$ (*c*) $\frac{21}{20}$

Think Tank (Page 161)

6 hours

Fast Check (Page 162)

1. $\frac{1}{5}$ **2.** $\frac{12}{35}$

Think Tank (Page 163)

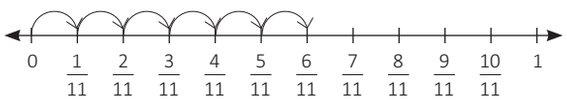
$\frac{1}{12}$

Practice Time 8A

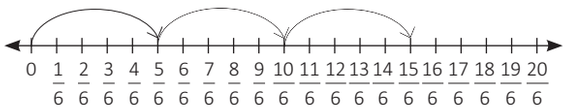
1. (*a*) $\frac{12}{5}$ (*b*) $\frac{24}{7}$ (*c*) $\frac{8}{9}$ (*d*) $\frac{21}{4}$

(*e*) $\frac{12}{35}$ (*f*) $\frac{22}{63}$ (*g*) $\frac{3}{88}$ (*h*) $\frac{12}{145}$

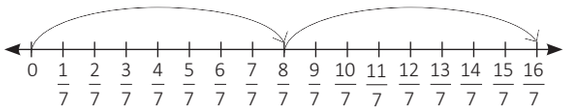
2. (*a*)



(*b*)



(*c*)



3. (*a*) $\frac{1}{12}$ (*b*) $\frac{3}{10}$ (*c*) $\frac{1}{10}$ (*d*) $\frac{1}{30}$

(*e*) $\frac{1}{64}$ (*f*) $\frac{1}{156}$ (*g*) $\frac{1}{100}$ (*h*) $\frac{1}{40}$

4. (*a*) $\frac{3}{5}$ of $\frac{5}{8}$ (*b*) $\frac{1}{2}$ of $\frac{6}{7}$

5. (*a*) $1\frac{7}{9}$ (*b*) $\frac{3}{4}$ (*c*) $\frac{48}{175}$ (*d*) $\frac{3}{140}$

6. $\frac{5}{4}$ km **7.** $\frac{21}{100}$ **8.** $\frac{3}{4}$ cup

9. (*a*) 8 students (*b*) 16 students (*c*) $\frac{2}{5}$

10. (*a*) $\frac{7}{30}$ (*b*) $\frac{21}{40}$ (*c*) $\frac{49}{100}$

11. $35\frac{5}{32}$ sq. m

Think Tank (Page 166)

4 full glasses, $\frac{1}{8}$ litres of juice will be left

Fast Check (Page 166)

(*a*) $\frac{5}{2}$ (*b*) $\frac{77}{72}$

Practice time 8B

1. (*a*) $\frac{1}{2}$ (*b*) $\frac{3}{2}$ (*c*) $\frac{7}{18}$ (*d*) 4

2. (*a*) $\frac{4}{3}$ (*b*) $\frac{9}{5}$ (*c*) 16 (*d*) 18

3. 6 **4.** $\frac{1}{15}$ **5.** 40 **6.** $\frac{1}{16}$

7. Each row contains $\frac{1}{25}$ of the packet; 15 sunflower seeds

8. 12 piece of rope

9. 5 hours **10.** $\frac{8}{3}$ halves **11.** $3\frac{7}{8}$ **12.** 6.25 m

Life Skills (Page 170)

375 children

Challenge Question (Page 171)

(*a*) $\frac{37}{48}$ (*b*) $\frac{11}{48}$

Chapter Assessment

A. 1. (*b*) **2.** (*c*) **3.** (*b*) **4.** (*c*)
5. (*c*) **6.** (*a*) **7.** (*c*) **8.** (*b*)
9. (*a*) **10.** (*d*)

B. 1. (*a*) **2.** (*c*)

C. 1. → (*b*) **2.** → (*c*) **3.** → (*d*) **4.** → (*a*)

D. 1. 147 **2.** $\frac{1}{8}$ **3.** $20\frac{5}{8}$ km

4. Each friend get $\frac{1}{5}$ of the pizza **5.** 267 tickets

6. 60 pages left

Model Test Paper - 1

A. 1. (*c*) **2.** (*a*) **3.** (*d*) **4.** (*c*) **5.** (*c*)
6. (*c*) **7.** (*d*) **8.** (*c*) **9.** (*a*) **10.** (*a*)

B. 1. $6 \times 100 + 5 \times 10$ **2.** 145 **3.** one **4.** Equal
5. $y + 3y = 4y$ **6.** 2.18 kg

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

D. 1. ₹355 **2.** 17.83 **3.** 0.8 cm
4. $\angle 2 = 120°$, $\angle 3 = 60°$, $\angle 4 = 120°$, $\angle 5 = 60°$, $\angle 6 = 120°$, $\angle 7 = 60°$, $\angle 8 = 120°$
5. (*a*) Even (*b*) Odd (*c*) Even
6.

25	11	21
15	19	23
17	27	13

7. 60°
8. (*a*) A = 5, B = 6, C = 7 (*b*) A = 9, B = 1

Part-2

Chapter 1: Geometric Twins

Let's Recall

1. (*a*), (*c*), (*f*)
2. (*a*) (*ii*) (*b*) (*iii*), (*c*) (*ii*), (*d*) (*i*)
3. (*a*) triangle (*b*) 3, 3 (*c*) scalene triangle
   (*d*) equilateral triangle (*e*) right-angled triangle

Think Tank (Page 183)

Length and breadth/width

Think Tank (Page 184)

(*i*) ∠C (*ii*) $\overline{CA}$ (*iii*) ∠A (*iv*) $\overline{BA}$

Fast Check (Page 184)

1. they have the same length
2. that the measures of ∠A and ∠B are equal
3. congruent

Practice time 1A

1. G ≅ A; D ≅ F ≅ C **2.** D **3.** A ≅ I, D ≅ B, F ≅ H
4. A ↔ F; B ↔ E ; and C ↔ D
   So, AB = FE, BC = ED and AC = FD
   And ∠A = ∠F, ∠B = ∠E, and ∠C = ∠D
5. Yes, ΔABC ≅ ΔRPQ
   And ∠A = ∠R, ∠B = ∠P, and ∠C = ∠Q
6. A ↔ Q; B ↔ R ; and C ↔ P
   So, AB = QR, BC = RP and AC = QP
   And ∠A = ∠Q, ∠B = ∠R, and ∠C = ∠P

Fast Check (Page 187)

(*c*)

Fast check (Page 190)

ΔMON

Think Tank (Page 191)

∠B = ∠R and ∠C = ∠P

Practice Time 1B

1. (*a*) ΔABC ≅ ΔCDA (*b*) ΔPSR ≅ ΔQSR (*c*) ΔABC ≅ ΔDBC
2. (*a*) ΔABD ≅ ΔACD (*b*) ΔDEF ≅ ΔNML
3. (*a*) ASA, ΔABC ≅ ΔDEF (*b*) SAS, ΔHGI ≅ ΔLJK
   (*c*) SSS, ΔPQR ≅ ΔYXZ (*d*) RHS, ΔABC ≅ ΔPQR
4. ΔPQS ≅ ΔRSQ, ∠P = ∠R = 90° and QS = QS, PS = RQ
5. 125° **6.** No **7.** AAS **8.** RHS
9. AB = QR (ASA congruence rule)

Chapter Assessment

A. **1.** (*a*) **2.** (*c*) **3.** (*a*) **4.** (*c*) **5.** (*c*)
6. (*a*) **7.** (*c*) **8.** (*b*) **9.** (*a*) **10.** (*c*)

B. **1.** (*a*) **2.** (*d*) **3.** (*a*)

C. **1.** equilateral **2.** base, equal **3.** length, breadth/width
4. cover **5.** congruent

D. **1.** T **2.** F **3.** T **4.** F **5.** T

E. **1.** → (*c*) **2.** → (*a*) **3.** → (*d*) **4.** → (*b*)

Mental Maths (Page 203)

1. AB = 12 cm, QR = 5 cm **2.** 70° and 70°
3. ∠B = 30° and ∠C = 30°

Chapter 2: Operations with Integers

Let's Recall

1. –2, –3, –5 or –10, 1, –1 (Answer may vary)
2. (–3) + 4 + (–6) **3.** –2, 3 or –4, 1 (Answer may vary)
4. 2760 metres **5.** (*a*) (–7) (*b*) (–18) (*c*) (–9)

Think Tank (Page 206)

1. 1 **2.** –1

Think Tank (Page 209)

9

Fast Check (Page 211)

(*a*) –13 (*b*) 24 (*c*) –1 (*d*) 8 (*e*) 0

Practice Time 2A

1. (*a*) –17, –13, –7, 3, 11, 15 (*b*) –15, –10, –9, –1, 0, 2, 12
2. (*a*) 51, 10, –2, –6, –15, –27, –35 (*b*) –59, –70, –79, –84, –100
3. (*a*) –1, –2, –3, –4, –5, –6, –7, –8 (*b*) –13, –14, –15, –16, –17
   (*c*) –24, –25, –26, –27, –28, –29
4. –19, –18, –17, –16 (Answer may vary)
5. –11, –12, –13, –14 (Answer may vary)
6. (*a*) –3 and –10 (*b*) –12 and + 3 (*c*) –3 and + 1 (Answer may vary)
7. (*a*) –23 (*b*) + 37 (*c*) –48 (*d*) + 75 (*e*) –46
9. (*a*) –3 (*b*) +1 (*c*) –3 (*d*) –4
10. (*a*) –2 (*b*) +3 (*c*) –5 (*d*) –22
    (*e*) –10 (*f*) +3 (*g*) 12 (*h*) –20
11. (*a*) 4 (*b*) –100 (*c*) –630 (*d*) –317

Life Skills (Page 212)

Roma scored 5 marks more than Ruhi

Fast Check (Page 212)

×	–3	–2	–1	0	1	2	3
–3	9	6	3	0	–3	–6	–9
–2	6	4	2	0	–2	–4	–6
–1	3	2	1	0	–1	–2	–3
0	0	0	0	0	0	0	0
1	–3	–2	–1	0	1	2	3
2	–6	–4	–2	0	2	4	6
3	–9	–6	–3	0	3	6	9

(*a*) (–2) × 3 = –6 (*b*) 3 × (–3) = –9

Fast Check (Page 216)

(*a*) –1 (*b*) 1

Think Tank (Page 216)

(*c*) (–3) × (–3) × (–3) × (–3) × (–3)

Practice Time 2B

1. (*a*) 77 (*b*) –132 (*c*) –9 (*d*) +428
2. (*a*) –6 (*b*) +20 (*c*) +6 (*d*) –30
3. (*a*) –10 (*b*) +15 (*c*) +12 (*d*) –56 (*e*) –90
   (*f*) –170 (*g*) 128 (*h*) –221 (*i*) –399 (*j*) +980
4. (*a*) –24 (*b*) 18 (*c*) 1 (*d*) –10 (*e*) 0
5. (*a*) 1 (*b*) 1 (*c*) –1 (*d*) 1
6. (*a*) – 76896 (*b*) 76896 (*c*) – 76896
7. (*a*) –13200 (*b*) + 120
8. (*a*) negative (*b*) positive (*c*) positive (*d*) negative
9. Loss of ₹3000 **10.** 504 feet below sea level

Challenge Question (Page 217)

–1°C, 20°C to 25°C or 68 °F to 77 °F

Fast Check (Page 221)

(*a*) Distributive property of multiplication over subtraction
(*b*) Associative property
(*c*) Identity property of addition
(*d*) Identity property of subtraction

Practice Time 2C

1. (*a*) –4 (*b*) –7 (*c*) 8 (*d*) 5
   (*e*) –1 (*f*) –3 (*g*) –21 (*h*) 28
2. (*a*) –19 (*b*) –2 (*c*) –29 (*d*) 0
   (*e*) –12 (*f*) –20 (*g*) –225
3. (*a*) 1 (*b*) 90 (*c*) –2 (*d*) 1
4. (*a*) 7 (*b*) –1 (*c*) –23 (*d*) –11
   (*e*) –101 (*f*) –35 (*g*) –81 (*h*) –1
   (*i*) 103 (*j*) –2

5. (*a*) –5075 (*b*) –1716 (*c*) –4 (*d*) 1200
(*e*) 436 (*f*) 2,11,970 (*g*) 480 (*h*) –10,200
(*i*) 30,000 (*j*) –5194 (*k*) 27,060
6. –144 **7.** –24 **8.** ₹9000 profit

Maths Connect (Page 223)

(*a*) 0 (*b*) + 4 (*c*) –8

Practice Time 2D

1. 60 minutes **2.** 111
3. (*a*) 4 incorrect answers (*b*) 7 incorrect answers
4. (*a*) 483840 (*b*) –69120
5. (*a*) Yes (*b*) Yes (*c*) Yes (*d*) Yes
(*e*) Yes (*f*) Yes (*g*) No

Challenge Question (Page 226)

Sanjay: 9:55 p.m., Imran: 10:01 p.m., Ruhi: 10:01 p.m., Roma: 10:03 p.m., Sumit: 10:06 p.m., Sonam: 10:10 p.m.

Chapter Assessment

A. 1. (*b*) **2.** (*b*) **3.** (*c*) **4.** (*c*)
5. (*d*) **6.** (*b*)
B. 1. (*d*) **2.** (*b*)
C. 1. *y*, *x*, *z* **2.** *a* **3.** 12, 5 **4.** –4
5. 40
D. 1. (*a*) –240 (*b*) –3 (*c*) –26 (*d*) 0 (*e*) 500
2. (*a*) 19 (*b*) 13
3. 5, –3 or 3, –5 **4.** 39 seconds
5. 260°C **7.** 20 bees decrease per day
8. 23 January **9.** 17 m

Chapter 3: Finding Common Ground

Let's Recall

1. (*a*) 1, 2, 3, 4, 6, 8, 12, 16, 24, 48
(*b*) 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72
2. (*a*) 11, 22, 33, 44, 55 (*b*) 18, 36, 54, 72, 90
3. 53, 59, 61, 67, 71, 73, 79, 83, 89, 97
4. (*a*) 2 (*b*) 7 (*c*) 6

Fast Check (Page 233)

1. (*a*) 1, 5 (*b*) 1
2. (*a*) 48, 96, 144, ... (*b*) 72, 144, 216, ...

Think Tank (Page 233)

1

Fast Check (Page 234)

1. (*a*) Composite (*b*) Composite (*c*) Prime (*d*) Composite
(*e*) Prime

Practice Time 3A

1. (*a*) 1, 2, 4, 8, 16, 32
(*b*) 1, 2, 3, 4, 6, 8, 12, 16, 24, 48
(*c*) 1, 3, 7, 9, 21, 63
(*d*) 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72
(*e*) 1, 3, 9, 27, 81
(*f*) 1, 2, 4, 5, 10, 20, 25, 50, 100
(*g*) 1, 2, 4, 31, 62, 124
(*h*) 1, 2, 3, 4, 6, 8, 9, 12, 16, 18, 24, 36, 48, 72, 144
2. (*a*) 11, 22, 33, 44, 55, 66, 77
(*b*) 13, 26, 39, 52, 65
(*c*) 23, 46, 69
(*d*) 32, 64, 96
3. (*a*) 2 × 2 × 2 × 2 × 2 (*b*) 2 × 3 × 3 × 3 (*c*) 2 × 3 × 13
(*d*) 3 × 3 × 3 × 3 (*e*) 2 × 2 × 3 × 3 × 3 (*f*) 2 × 2 × 2 × 3 × 5
(*g*) 2 × 2 × 2 × 2 × 3 × 3 (*h*) 151
4. (*a*) 2 × 3 × 7 (*b*) 2 × 3 × 13 (*c*) 2 × 2 × 2 × 2 × 2 × 2
(*d*) 2 × 2 × 2 × 13 (*e*) 2 × 2 × 2 × 2 × 7 (*f*) 3 × 7 × 7
(*g*) 2 × 2 × 7 × 7 (*h*) 211
5. (*a*) 10, 5 (*b*) 7, 3, 3 (*c*) 8, 4, 2, 2
6. (*a*) 1, 2, 7, 14 (*b*) 1, 2, 3, 6 (*c*) 1, 5
(*d*) 1, 2, 3, 4, 6, 12
7. (*a*) 180, 360, 540, ... (*b*) 240, 480, 720, ...
(*c*) 42, 84, 126, ... (*d*) 72, 144, 216, ...
8. (*a*) 12 (*b*) 15 (*c*) 8 (*d*) 14
(*e*) 30 (*f*) 8 (*g*) 36 (*h*) 54
9. (*a*) 28 (*b*) 15 (*c*) 12 (*d*) 2
(*e*) 13 (*f*) 25 (*g*) 17 (*h*) 58
10. 33 **11.** 29 **12.** 93

Maths Fun (Page 239)

6, 12, 18, 24, 30, 36, 42, 48

Practice Time 3B

1. (*a*) 192 (*b*) 288 (*c*) 72 (*d*) 702
(*e*) 21,840 (*f*) 600 (*g*) 1,34,568 (*h*) 4680
2. (*a*) 637 (*b*) 33,480 (*c*) 38,700 (*d*) 31,200
(*e*) 3780 (*f*) 3600 (*g*) 2040 (*h*) 2520
3. 252 **4.** 546 **5.** 509

Think Tank (Page 243)

132

Think Tank (Page 244)

(6, 18); (4, 12) (Answer may vary)
The LCM of two numbers is one of them if the other number divides exactly it.
The LCM of *s* and 7*s* = 7*s*.

Practice Time 3C

4. 288 **5.** 36 **6.** 11
7. (*a*) any multiple of *k*
(*b*) a any multiple of 11 that does not have any other common factor with 11
8. 24 articles, 34 piles **9.** 170 litres **10.** 156 fruits
11. 11:30 a.m. **12.** 1800 seconds or 30 minutes **13.** 1008 cm
14. 360

Life Skills (Page 246)

2100 cm or 21 m

Chapter Assessment

A. 1. (*a*) **2.** (*b*) **3.** (*d*) **4.** (*d*) **5.** (*b*) **6.** (*a*)
7. (*b*) **8.** (*b*) **9.** (*c*) **10.** (*c*)
B. 1. (*a*) **2.** (*a*) **3.** (*d*) **4.** (*a*)
C. 1. greatest **2.** HCF, LCM **3.** smaller **4.** co-primes
5. smallest
D. 2. 5 **3.** 10 **4.** 12 articles, 34 piles **5.** 12 tiles
6. 25 cm **7.** ₹8

Challenge Question (Page 249)

1. P = 480 and Q = 160 **2.** No, HCF = 1

Chapter 4: Another Peek Beyond the Point

Let's Recall

1. One thousand three hundred thirty-five rupees and sixty paise
2. ₹164.4 **3.** It lies between 1335 and 1336
4. ₹1272 **5.** ₹0.39

Think Tank (Page 256)

(*a*) 0.7 mm (*b*) 3 mm

Practice Time 4A

1. (*a*) 113.76 (*b*) 97.72 (*c*) 0.35 (*d*) 62.3
2. (*a*) 1.6695 (*b*) 4.4928 (*c*) 118.23 (*d*) 0.000028
3. (*a*) 598 (*b*) 7.65 (*c*) 96394 (*d*) 8.2
4. (*a*) 170.1 (*b*) 17.01 (*c*) 17.01 (*d*) 0.1701
(*e*) 0.001701 (*f*) 170.1
5. (*b*) and (*d*) give products less than 1.
6. 11.684 g **7.** ₹854.05 **8.** ₹739.784

Fast Check (Page 258)

Decimal	÷ 10	÷ 100	÷ 1000	÷ 10000
15.7	1.57	0.157	0.0157	0.00157
31.1	3.11	0.311	0.0311	0.00311
0.16	0.016	0.0016	0.00016	0.000016
217.6	21.76	2.176	0.2176	0.02176
98	9.8	0.98	0.098	0.0098

Fast Check (Page 261)

54.625

Practice Time 4B

1. (*a*) 0.8 (*b*) 0.375 (*c*) 2.25 (*d*) 0.5
(*e*) 1.45 (*f*) 1.2375 (*g*) 0.96 (*h*) 0.84
2. (*a*) 3.02 (*b*) 9.5 (*c*) 0.05 (*d*) 3.11
3. (*a*) 6.2 (*b*) 0.04 (*c*) 2.66 (*d*) 8.3
4. (*a*) 0.496 (*b*) 0.0036 (*c*) 0.01485 (*d*) 0.092782
5. (*a*) 89.28 (*b*) 248 (*c*) 0.36 (*d*) 0.008928
6. (*a*) 100 (*b*) 0.1 (*c*) 10 (*d*) 0.01
(*e*) 5 (*f*) 100
7. 23.5 **8.** ₹148.76 **9.** ₹4.2 **10.** 34 tins
11. 19 km

Challenge Question (Page 264)

0.244

Maths Connect (Page 265)

1. 12.11 extra days **2.** 18,262.11 days

Chapter Assessment

A. 1. (*a*) **2.** (*a*) **3.** (*c*) **4.** (*b*) **5.** (*c*)
6. (*a*) **7.** (*b*)
B. 1. (*d*) **2.** (*b*) **3.** (*a*)
C. 1. 5.04 **2.** 9 **3.** right **4.** 2 **5.** 667
D. 1. → (*d*) **2.** → (*a*) **3.** → (*e*) **4.** → (*b*) **5.** → (*c*)
E. 1. F **2.** T **3.** F **4.** T 5. T
F. 1. 5 pieces **2.** 1.5 cups of sugar **3.** 49.4 cups
4. (*a*) 11.7362 (*b*) 11.13525 **5.** 7280

Unit Test – 2

A. 1. (*c*) **2.** (*c*) **3.** (*a*) **4.** (*c*) **5.** (*b*) **6.** (*b*)
7. (*d*) **8.** (*b*) **9.** (*b*) **10.** (*a*)
B. 1. hypotenuse **2.** product **3.** 100 **4.** 1000
5. –2 **6.** –5
C. 1. F **2.** T **3.** T **4.** T **5.** F
D. 1. ∠Q = 70°, ∠M = 70°; Yes, by AAS congruency criterion
2. (*a*) –168 (*b*) 288 (*c*) –165 (*d*) 3192
(*e*) –720 (*f*) –2160
3. (*a*) 12 (*b*) 216 **4.** 1504 litres
5. 1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84 **6.** 34 boxes
7. (*a*) 737.80 (*b*) 73.780 (*c*) 737.80 (*d*) 7.378

Chapter 5: Connecting the Dots...

Let's Recall

1. (*a*) 6 (*b*) 29 (*c*) 16 (*d*) 47 kg
2. (*a*) Cricket (*b*) Swimming (*c*) Badminton and Tennis
(*d*) 7

Fast Check (Page 273)

Statement 1 and 2

Practice Time 5A

1. (*a*) The average lifespan of a golden retriever is 11 years.
75% of the people surveyed prefer tea over coffee in the morning.
The average price of a 2 BHK house sold in the city last year was 65 lakhs. (Answer may vary)
(*b*) What is the weight of a new-born baby in this hospital?
How many hours do students of the 7th grade read per day?
What is the different shoe sizes worn by the students of 7th grade?
(Answer may vary)
2. (*a*) No, it asks for a single, fixed price of a specific item at a specific location.
(*b*) No, it asks for a single, fixed count for a specific place at a specific time.
(*c*) Yes, the individual answers (whether each student plays or not) vary, and the final answer is a summary of this varied data.
(*d*) No, it asks for a single individual's opinion.
(*e*) Yes, the answer requires scores of all the players.
(*f*) Yes, the answer requires collecting and summarising the variable daily data.
3. 7, 9, 12, 15, 32, 45, 51, 52, 59, 65, 148; Range = 141
4. (*a*) 24°C (*b*) 33°C (*c*) 9°C
5.

Number of students	Tally marks	Frequency
20	||	2
21	|||	3
22	||||	4
23	|||	3
24	𝍸||	6
25	||||	4
26	|||	3
	Total	25

(*a*) 3 (*b*) 2

6.

Number of plants	Tally marks	Frequency
1	𝍸 𝍸	10
2	𝍸 𝍸 𝍸 |	16
3	𝍸	5
4	𝍸 |	6
5	|||	3
	Total	40

(*a*) 40 (*b*) 9

Fast Check (Page 278)

1. 4.5 **2.** 36

Practice Time 5B

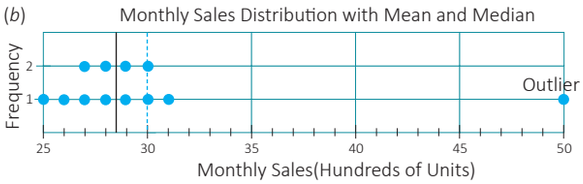
1. 51.83
2. (*a*) 126 cm (*b*) 139 cm (*c*) 132.4 cm (*d*) 5 students
3. (*a*) 3 families (*b*) 1 family (*c*) 1.7
4. 39.8 **5.** 6.2 **6.** 13.57 km
7. 3.29 hours (approx.) **8.** 6.5 kg
9. ₹28,200

Practice Time 5C

1. (*a*) 8 (*b*) 37.5 **2.** 9 runs
3. (*a*) 48
(*b*) The outlier raises the mean significantly, from 13.00 to 18.00
(*c*) The outlier does not affect the median in this case.
4. (*a*) Mean = ₹98.125, Median = ₹56
(*b*) The outlier, ₹400, drastically increases the mean from ₹55.00 to ₹98.12. The median, however, only changed slightly (if at all) from ₹55.00 (without ₹400) to ₹56.00 (with ₹400)
The outlier has greater impact on mean than on median.
5. (*a*) 150 mm
(*b*) The outlier raises the mean significantly from 22.43 mm to 38.38 mm.
(*c*) Median (with outlier) = 22.5, Median (without outlier) = 22.
The median is a better measure of central tendency because it is resistant to outliers.
6. (*a*) 0
(*b*) Mean with outlier = 15.6, Mean without outlier = 17.33
(*c*) Median
7. (*a*) 9000 steps (*b*) It increases the mean from 5733.33 to 6200 and the median from 5850 to 5900.
8. Mean = 42.30 kg, median = 41.50 kg

9. (*a*) Mean = 30 (hundreds of units) , Median = 28.50 (hundreds of units)

(*b*)

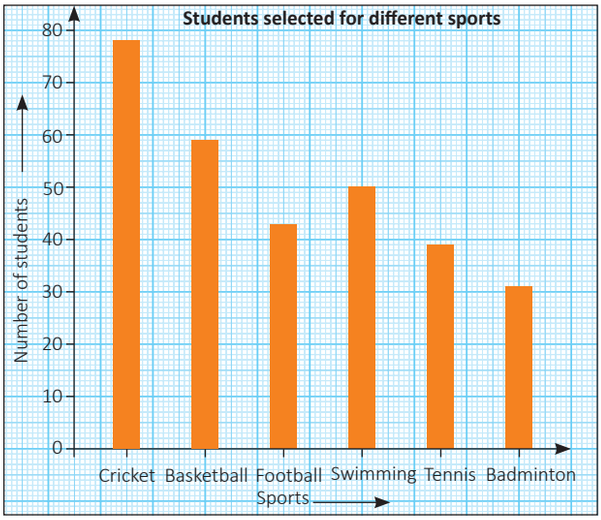


(*c*) Outlier = 50, Mean (without outlier) = 28.18 (hundreds of units), Median (without outlier) = 29 (hundreds of units)

10. Mean (boys) = 142.94 cm, Median = 144 cm; Mean (girls) = 146.90 cm, Median = 148 cm

Practice Time 5D

1.



2. (*a*) Monday (*b*) Saturday (*c*) 16 fans

3. (*a*) Maximum students: Class V; Minimum students: Class IX.
(*b*) Maximum absentees: Class V; Minimum Absentees: Class X.

4. (*a*) March
(*b*) February (169), May (148), June (460), and July (114)
(*c*) January
(*d*) 2511 units
(*e*) Laptop
(*f*) 1 month (March)

5. (*a*) March (*b*) May (*c*) 60 litres (*d*) 69 litres

6. (*a*) The tiger population increased steadily.
(*b*) 2020, the tiger population of 300 was higher than the lion population of 260.
(*c*) Overall, the elephant population increased by 40 (from 220 to 260).
(*d*) The lion population increased the most in both 2018 and 2020, by 40.
(*e*) The tiger population was higher by 35.
(*f*) No.

Chapter Assessment

A. 1. (*c*) **2.** (*b*) **3.** (*a*) **4.** (*a*) **5.** (*d*)
6. (*c*) **7.** (*b*) **8.** (*b*)

B. 1. mean **2.** dot **3.** range **4.** side by side median 5

C. 1. F **2.** F **3.** T **4.** F **5.** F

D. 1. Mean = 3.2, median = 3 **2.** Arun

3. Mean = 123.57, Median = 124 cm

4. (*a*) Mean = 9572.73 steps, Median = 8200 steps
(*c*) Outlier = 30,000; new mean = 7530 steps, new median = 7900 steps

5. (*a*) The graph compares the maximum temperatures (in °C) of four different months (April, May, June, and July) between the years 2020 and 2021.
(*b*) May and July (*c*) July (*d*) June

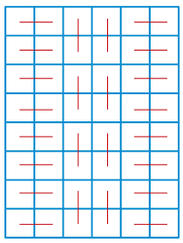
6. (*a*) 2024 (*b*) 2516.67 (*c*) June (*d*) June
(*e*) April

Chapter 6: Constructions and Tilings

Practice Time 6C

1. (*a*) 25 tiles (*b*) Yes, 15 tiles

2. Yes



3. (*a*) Yes (*b*) No

Chapter Assessment

A. 1. (*b*) **2.** (*c*) **3.** (*b*) **4.** (*a*) **5.** (*c*)
6. (*c*) **7.** (*c*)

B. 1. (*a*) **2.** (*c*) **3.** (*b*)

C. 1. T **2.** F **3.** T **4.** F **5.** T

Challenge Question (Page 322)

1. 3 **3.** 15

Mental Maths (Page 323)

1. 45° **2.** 60° **3.** 2 times **4.** One

Chapter 7: Finding the Unknown

Let's Recall

1. ₹60 **2.** $5n = 60$

3. (*a*) 150 g (*b*) 200 g (*c*) 3 kg (*d*) 2 kg

Think Tank (Page 328)

$2x + 7 = 18$

Practice Time 7A

1. (*a*) $x + 8 = 17$ (*b*) $3y - 9 = 13$ (*c*) $8 - 2m = 7$
(*d*) $3p - 11 = 32$ (*e*) $\frac{x+1}{3} = \frac{3}{4}x$

2. (*a*) The sum of 7 and a number x is 63.
(*b*) 1 subtracted from 3 times a number x gives 16.
(*c*) 1 added to 4 times a number y is 29.
(*d*) Thrice of the number n divided by 5 gives 6.
(*e*) 1 subtracted from two times a number u is equal to one-half.
(*f*) 1 added to the quotient of a number t and 3 is 4.
(*g*) 7 subtracted from twice a number m is zero.
(*h*) 7 subtracted from three-fourths of a number k gives 6.

3. (*a*) No (*b*) Yes (*c*) No (*d*) Yes
(*e*) No (*f*) No (*g*) Yes (*h*) Yes

4. (*a*) $2(3b + b) = 150$ (*b*) $p - 5 = 45$
(*c*) $x + (x + 13) = 32$

Fast Check (Page 330)

7 years

Practice Time 7B

1. (*a*) $x = 3$ (*b*) $p = 5$ (*c*) $m = 8$ (*d*) $x = 16$

2. (*a*) $x = 5$ (*b*) $x = 11$ (*c*) $x = 8$ (*d*) $x = 4$
(*e*) $z = 12$ (*f*) $t = 5$ (*g*) $y = 2$ (*h*) $y = 2$
(*i*) $x = -1$ (*j*) $x = 2$

3. (*a*) $x = 5$ (*b*) $x = 2$ (*c*) $x = 2$ (*d*) $x = 2$
(*e*) $x = 56$ (*f*) $y = 11$ (*g*) $x = \frac{24}{13}$ (*h*) $z = -1$
(*i*) $a = 4$ (*j*) $x = 10$

Maths Fun (Page 335)

1. 22 **2.** 25

Think Tank (Page 343)

30

Practice Time 7C

1. (*a*) $p = 11$ (*b*) $m = 5$ (*c*) $y = 8$ (*d*) $p = 5$ (*e*) $m = 35$
(*f*) $x = 21$ (*g*) $b = 2$ (*h*) $n = 2$ (*i*) $x = 3$ (*j*) $x = 5$
(*k*) $y = 9$ (*l*) $x = 2$ (*m*) $t = 17$

2. (*a*) 30 (*b*) 16 (*c*) 4 (*d*) –2

3. (*a*) $x + 5 = 3$, $3x = -6$, $-x = -2 - 2x$, $\frac{x}{4} + 1 = \frac{1}{2}$ (Answer may vary)

(*b*) $x - 10 = -6$, $5x + 2 = 22$, $3x + 1 = 13$, $-\frac{x}{2} = 2 - x$ (Answer may vary)

(*c*) $2n = 3$, $n + 1 = \frac{5}{2}$, $4n - 5 = 1$, $n - \frac{3}{2} = 0$ (Answer may vary)

4. 27 **5.** 15, 45 **6.** 10 and 8 **7.** 4 years
8. 2 kg **9.** 258 **10.** 16 cm and 8 cm
11. 30 **12.** 60 - ₹5 coins, 120 - ₹2 coins and 240 - ₹1 coins.

Puzzle (Page 346)

$x = 9$

Practice Time 7D

1. (*a*) $x = 14$ and $y = 7$ (*b*) $x = 8$, $y = 2$
(*c*) $x = 54$, $y = 109$ (*d*) $x = 36$, $y = 34$
(*e*) $x = 27$, $y = 25$

2. 2784 **3.** 768 **4.** 8 hands

Mental Maths (Page 347)

1. $x = 4$ **2.** $p = 0.7$ **3.** 23 **4.** 12 **5.** 7

Challenge Question (Page 348)

$\triangle = 7$, $\ast = 4$

Chapter Assessment

A. **1.** (*d*) **2.** (*b*) **3.** (*d*) **4.** (*a*) **5.** (*c*)
B. **1.** (*a*) **2.** (*a*) **3.** (*d*)
C. **1.** → (*d*) **2.** → (*a*) **3.** → (*e*) **4.** → (*b*) **5.** → (*c*)
D. **1.** 19 **2.** 3 **3.** 0 **4.** 75 **5.** $x = \frac{-b}{a}$
E. **1.** (*a*) $30 - x$ (*b*) $1000x + 30000$ (*c*) $1000x + 30000 = 52000$
(*d*) 22 (*e*) 22, 8
2. 15 years **3.** ₹48,000 **4.** ₹425
5. 3 chocolates **6.**  = 6 kg,  = 10 kg
7. (*a*) 30 years (*b*) 38 years (*c*) 58 years (*d*) 28 years

Life Skills (Page 351)

Number of boys = 45, Number of girls = 42

Model Test Paper – 2

A. **1.** (*b*) **2.** (*c*) **3.** (*b*) **4.** (*c*) **5.** (*c*)
6. (*a*) **7.** (*a*) **8.** (*a*) **9.** (*a*) **10.** (*d*)

B. **1.** constant **2.** $x = \frac{-n}{m}$ **3.** side by side
4. co-prime **5.** $(-p)$ **6.** sidelength
C. **1.** F **2.** T **3.** F **4.** F **5.** F
D. **1.** Mango moothie = ₹40; Chocolate frappe = ₹55 **2.** No
3. (*b*) Mean = 30.58; Median = 25.5
(*c*) Outlier = 90; Mean (without outlier)
= 25.18; Median (without outlier) = 25
5. 23.5 cm
7. (*a*) HCF = 2×5; LCM = $2 \times 2 \times 3 \times 5 \times 7 \times 11$
(*b*) HCF = 3×5; LCM = $2 \times 2 \times 3 \times 3 \times 5$
8. (*a*) 10 incorrect answers (*b*) 19 questions
9. (*a*) Yes (*b*) Yes