

Answers

EXERCISE 1

1. 1
2. 41600,
3. (i) > (ii) > (iii) = (iv) <
(v) > (vi) >
4. 20
5. 9899

EXERCISE 2.1

1. 1 2. 0 3. 4 4. 46,47,48 5. 41806
6. (i) False (ii) True (iii) True (iv) True (v) True (vi) True
(vii) False (viii) False
7. (i) 24 (ii) 78 (iii) 519 (iv) 1099 (v) 52331
8. (i) 26 (ii) 521 (iii) 1101 (iv) 52333
9. 100000 10. 99999 11. 1
12. 18, 252,421,497, 557, 731
13. 617, 458, 225, 69, 59
14. (ii)
15. 6387

EXERCISE 2.2

1. (i) 391 (ii) 40 (iii) 40 (iv) 39 (v) C
2. (i) $(23589+411) + 1248 = 25248$ (ii) $(32+68)+(2546+544) = 3190$
(iii) $(247+153)+376 = 776$ (iv) $(143+857)+456 = 1456$
(v) $(32958+12042)+5000 = 50000$
3. 0 4. Sum of two whole numbers is always a whole number.
5. (i) 4559 (ii) 0 (iii)
$$\begin{array}{r} 876 \\ \underline{239} \\ 637 \end{array}$$
6. 1 7. 0 8. $1216 \div 76 = 16$ 9. 32 10. 20310
11. (i) Quotient = 215, Remainder = 32 (ii) Quotient = 14, Remainder = 735
(iii) Quotient = 309, Remainder = 145

$$\begin{array}{r} 12. \quad (i) \quad 735 \\ - 429 \\ \hline 306 \end{array}$$

$$\begin{array}{r} (ii) \quad 4931 \\ - 3078 \\ \hline 1853 \end{array}$$

13. Rs. 390

14. Rs. 3414

15. 31825

16. 9

17. 780

EXERCISE 3

1. (i) True (ii) False (iii) True (iv) True (v) False
 2. (i)
 3. (i) AB and CD (ii) RS and PQ (iii) SR and TU
 4. C and E

EXERCISE 4

- | | | |
|----------------|-----------|------------|
| 1. (i) -2 | (ii) 2 | (iii) -9 |
| (iv) 8 | (v) -4 | (vi) 3 |
| (vii) -5 | (viii) 8 | |
| 2. (i) 1028 | (ii) -266 | (iii) 36 |
| (iv) 154 | | |
| 3. (i) = | (ii) < | (iii) < |
| (iv) = | (v) = | (vi) > |
| 4. (i) 30 | (ii) 90 | (iii) 24 |
| (iv) 24 | (v) 0 | (vi) 42 |
| 5. (i) > | (ii) = | (iii) < |
| (iv) = | (v) = | (vi) < |
| (vii) = | | |
| 6. 13 | | 7. 100 |
| 8. (i) 15 | (ii) -10 | (iii) -4 |
| (iv) Undefined | (v) -14 | (vi) -19 |
| 9. (i) 4 | (ii) -2 | (iii) -1 |
| (iv) -12 | | |
| 10. (i) -17 | (ii) 23 | (iii) -68, |
| (iv) 75 | | |
| 11. (i) 18 | (ii) -26 | (iii) -161 |
| (iv) 79 | | |

EXERCISE 5

5. 44 cm
 6. (i) Radius (ii) Centre (iii) Diameter
 (iv) Centre (v) Equal (vi) Radius
 (vii) Chord

EXERCISE 6.1

1. (i) 12 (ii) 18 (iii) 10 (iv) 27
2. (i) 36 (ii) 150 (iii) 24 (iv) 15
3. 1
4. (i) $361/64$, (ii) $201/275$ 5. 17
6. 11 7. 44 8. 17, 113 heaps 9. 30

EXERCISE 6.2

Oral :

1. 4 2. 338 3. 24 4. Greater than 7 5. Not

Written :

1. i. 28 ii. 324 iii. 180 iv. 2520
2. i. 56 ii. 1904 iii. 360 iv. 16560
3. 10 4. 15 times 5. 23 January
6. 72 7. 221 8. 20 days
9. No, because H.C.F is always a factor of L.C.M.
10. 4.15 Evening

EXERCISE 7

1. (i) False (ii) False (iii) True
(iv) False (v) True (vi) False
(vii) True (viii) False (ix) True (x) True
2. (a) (i) $\frac{8}{9} > \frac{7}{8} > \frac{5}{6}$ (ii) $\frac{7}{6} > \frac{3}{4} > \frac{8}{12} > \frac{1}{2} > \frac{1}{6}$
(b) (i) $8 > .8 > .08 > .008 > .0008$ (ii) $.01 > .00992 > .0099 > .0012$
3. (i) $\frac{1}{3} < \frac{9}{24} < \frac{5}{8} < \frac{5}{6} < \frac{3}{2}$ (ii) $\frac{1}{8} < \frac{2}{15} < \frac{1}{6} < \frac{1}{4} < \frac{1}{2}$
4. (i) $5\frac{19}{40}$ (ii) 8.0001 (iii) $\frac{3}{4}$ (iv) 1 (v) $11\frac{5}{12}$ (vi) $1\frac{5}{14}$
5. (i) 24 (ii) 77 (iii) 36 (iv) 8
6. Proper $\frac{4}{5}, \frac{8}{9}, \frac{15}{16}, \frac{3}{7}$ Improper $\frac{17}{4}, \frac{16}{13}, \frac{6}{5}, \frac{8}{5}$

EXERCISE 8.1

1. (i) $\angle AOB$ (ii) $\angle LMN$ (iii) $\angle PQR$ (iv) $\angle STU$ (v) $\angle ABC$
4. 180°

EXERCISE 8.2

1. (i) True (ii) False (iii) True (iv) True
2. (i) Obtuse angle (ii) Acute angle (iii) Right angle (iv) Straight angle
(v) Acute angle (vi) Obtuse angle (vii) Acute angle (viii) Acute angle
(ix) Acute angle (x) Acute angle

EXERCISE 9.1

1. (i) False (ii) True (iii) False (iv) True (v) False
(vi) False (vii) True (viii) False (ix) True (x) True
2. 40° 3. 45° 4. 60° 5. Yes
6. (i) No (ii) No (iii) Yes (iv) No (v) Yes (vi) No

EXERCISE 9.2

- (1) (i) Two (ii) Triangles (iii) 360° (iv) Two
(v) Four, Three
- (2) (i) Trapezium (ii) 90° (iii) Parallel, equal
(iv) Square (v) Rhombus
- (3) (i) True (ii) False (iii) False (iv) False

EXERCISE 10.1

2. (i) 1 : 4 (ii) 1 : 4 (iii) 3 : 20 (iv) 3 : 100
(v) 21 : 200 (vi) 40 : 1 (vii) 4 : 25
3. (i) 3 : 8 (ii) 1 : 3 (iii) 3 : 5 (iv) 9 : 19
(v) 6 : 17 (vi) 2 : 3 (vii) 5 : 7 (viii) 1 : 3
(ix) 2 : 9 (x) 1 : 20
4. (i) 1 : 16 (ii) 16 : 1
5. 7 : 6
6. (i) 4 : 3 (ii) 4 : 7 7- 3 : 2
8. 8 to Bhanu and 12 to Bangaru 9. 5 : 4 10. 4 : 5
11. 10 Mangoes to Ratna and 8 Mangoes to Sheela

12. (i) 5 : 2 (ii) 4 : 1 (iii) 7 : 1 (iv) 7 : 4 (v) 5 : 3
 13. Rs. 9000 to Ram and Rs. 12000 to Shyam.
 14. AB = 28 Km BC = 12 Km 16. (i) 3 to each (ii) 2, 1, 3

EXERCISE 10.2

1. Rs. 38.50 2. (i) In 8 hours (ii) 357.50 Kilometre
 3. (i) 10 Kilograms (ii) 48 Kilograms 4. Rs. 1800 5. Rs. 640
 6. No. of Books Price (in rupees)
 50 2500
 75 3750
 2 100
 60 3000

EXERCISE 11

1. (i) $a=2r$ (ii) $A = 1 \times b$ (iii) $s = c + p$ (iv) $a + b$ (v) $x - 7$
 (vi) $A = p + c$
 2. (i) True (ii) True (iii) False (iv) True (v) True

EXERCISE 12

1. vi and viii - Monomial, i, ii, iii, iv, v, vi, viii, ix and x—binomial.
 2. $5xy$ and $\frac{9}{4}xy$, $7c$ and $2c$, $\frac{4}{5}yz$ and $\frac{11}{13}yz$
 $7bc$ and bc , $\frac{2}{7}z$ and $7z$, $37pqr$ and $9pqr$

EXERCISE 13

1. (i) 150% (ii) 250% (iii) 20% (iv) 15%
 2. (i) $\frac{1}{2}$ (ii) $\frac{3}{20}$ (iii) $\frac{1}{50}$ (iv) $\frac{1}{10}$
 3. Rs. 216 4. 72 kilograms 5. 50% 6. Rs. 9
 7. 3 toffees 8. 65% 9. 100%
 10. 28,800 gents, 25,200 ladies 11. Deficiency of 1%
 12. 10% 13. 800 14. 20% 15. 90% pass, 10% fail
 16. 1440 literate, 160 illiterate

EXERCISE 14.1

1. i and iv, vi, vii, viii, ix and x are equations of x.
2. i. left = $x - 5$ right = 9 ii. left = $2x - 3$ right = 7
 iii. left = $2y$ right = $9 - y$ iv. left = $2y$ right = 6
 v. left = 15 right = $2a + 5$
3. i. $2y - 3 = 17$ ii. $\frac{y}{6} = 7$ iii. $y - 5 = 8$
 iv. $3y + 11 = 44$ v. $7y - 5 = 9$
4. (i) 9 obtained by subtracting 6 from any number.
 (ii) 0 obtained by subtracting 14 from 7 times of any number.
 (iii) Two third of a number is 6.
 (iv) 10 obtained by adding 5 to the half of any number.
 (v) 4 obtained by subtracting half of any number from 38.

EXERCISE 14.2

1. (i) $x = -1$ (ii) $z = 8$ (iii) $y = 3$ (iv) $y = 3$ (v) $x = 6$
 (vi) $z = \frac{7}{3}$
2. (i) $x = 2$ (ii) $z = 4$ (iii) $x = 75$ (iv) $y = 1$
3. 5 4. 25 5. 40 6. 20 7. 13 metre

EXERCISE 16

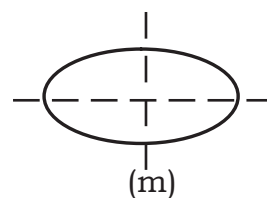
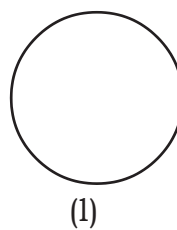
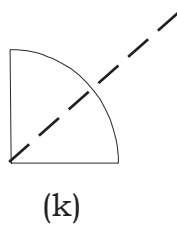
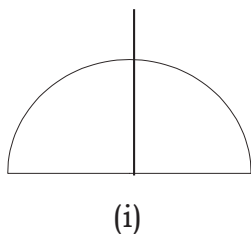
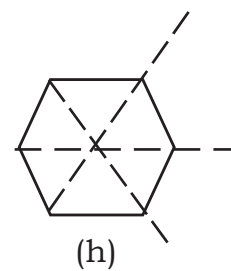
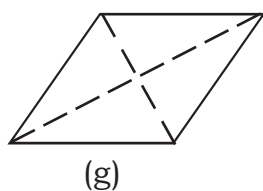
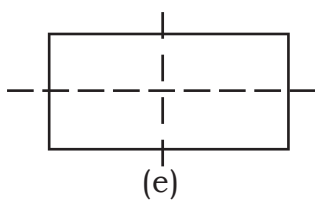
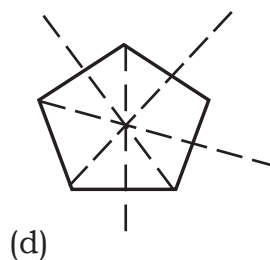
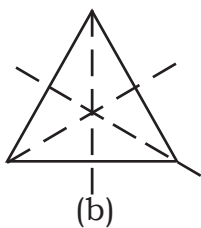
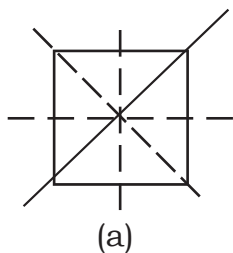
- (1) Closed figures:
 (i) (ii) (iii) (iv) (v)
 (vii) (x) (xii) (xiii)
- (2) (i) 12 sq.cm (ii) 10 sq.cm
 (iii) 72 sq.m (iv) 135 sq.m
- (3) (i) 36 sq.cm (ii) 144 sq.cm
 (iii) 169 sq.cm (iv) 12.25 sq.cm
- (4) (i) 20 sq.cm (ii) 24 sq.cm
- (5) 36 sq.cm

EXERCISE 17

- | | | | |
|----|---------------------|------------------------|------------------------|
| 1) | (i) 12 cm | (ii) 12 cm | (iv) 6 cm |
| | (vi) 8 cm | (vii) 8 cm | (viii) 15 cm |
| 2) | (i) 42 cm | (ii) 36 cm | |
| | (iii) 12 cm | (iv) 3 metre or 300 cm | |
| 3) | (i) True | (ii) False | (iii) False (iv) True |
| 4) | 60 cm | | |
| 5) | 140 cm or 1.4 metre | | |
| 6) | (i) 8 cm | (ii) 16 cm | (iii) 32 cm (iv) 24 cm |
| | (v) 20 cm | (vi) 13 cm | (vii) 18 cm |
| 7) | 280 metre | | |

EXERCISE 18.1

1.



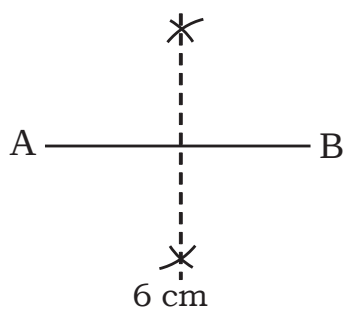
EXERCISE 18.2

Q.1.

Symmetry	Non-symmetry
b	a
c	d
g	e
h	f

Q.2. Do yourself.

Q.3.



EXERCISE 19

Q. 1

No.	Tally sign	Frequency
0		2
1		2
2		5
3		5
4		3
5		3

Q. 2

Temperature	Tally sign	Frequency
37.8		2
37.9		3
38.0		2
38.1		3
38.2		3
38.3		2

Q. 3. (a) Second class (b) 40

(c) 36