# ANSWERS

## Unit 1

**1.** (C) **2.** (C) **3.** (D) **4.** (B) **5.** (D) **6.** (D)

**7.** (C) **8.** (B) **9.** (D) **10.** (C) **11.** (D) **12.** (C)

**13.** (D) **14.** (D) **15.** (B) **16.** (A) **17.** (C) **18.** (C)

**19.** (B) **20.** (B) **21.** (D) **22.** (B) **23.** (B) **24.** (A)

**25.** (C) **26.** (D) **27.** (B) **28.** (A) **29.** (C) **30.** (B)

**31.** (D) **32.** (D) **33.** (B) **34.** (A) **35.** (A) **36.** (C)

**37.** (B) **38.** (C) **39.** T **40.** F **41.** T **42.** T

**43.** F **44.** T **45.** F **46.** T **47.** F **48.** F

**49.** F **50.** T **51.** F **52.** F **53.** T **54.** F

**55.** F **56.** F **57.** F **58.** T **59.** F **60.** F

**61.** T **62.** T **63.** T **64.** F **65.** F **66.** T

**67.** F **68.** T **69.** T **70.** F **71.** T **72.** T

**73.** F **74.** T **75.** T **76.** F **77.** T **78.** T

**79.** T **80.** F **81.** F **82.** F **83.** T **84.** F

**85.** T **86.** F **87.** T **88.** F **89.** T **90.** T

**91.** F **92.** F **93.** T **94.** T **95.** T **96.** F

**97.** F **98.** T **99.** (a) 1 (b) 1

**100.** (a) 1000 (b) 10 (c)10,00,000 **101.** (a) 1000 (b)1000 (c)1000,000

**102.**1 **103.** 1650 **104.** 1290000 **105.** 422000 **106.** descending

**107.** smallest **108.** 6 **109.** 5,23,78,401 **110.** L **111.** LXVI

**112.** 2,538,000 **113.** 0 **114.** 106160 **115.** 99999 **116.** 401

**117.** 1000 **118.** number **119.** 100005 **120.** addition, multiplication

**121.** addition, multiplication **122.** 0 **123.** addition **124.** 6195

**125.** 1001 **126.** 0 **127.** 0 **128.** 1 **129.** 68 **130.** 8925

**131.** 1 **132.** 17 **133.** 27 **134.** 7860 **135.** 100 **136.** multiple

**137.** 1 **138.** 2 **139.** perfect **140.** composite **141.** prime

**142.** co-prime **143.** 25 **144.** 0 **145.** 0, 5 **146.** 2

**147.** multiple **148.** 11 **149.** multiple **150.** factors

**151.** (i)- (d), (ii)- (f), (iii)- (b), (iv)- (e), (v)- (c)

**152.** 25843, 13584, 8435, 5348, 4835. **153.** 67205602, 30040700

**154.** (a) 7 × 10000 + 4 × 1000 + 8 × 100 + 3 × 10 + 6 × 1

(b) 5 × 100000 + 7 × 10000 + 4 × 1000 + 0 × 100 + 2 × 10 + 1 × 1

(c) 8 × 1000000 + 9 × 100000 + 0 × 10000 + 7 × 1000 + 0 × 100 + 1 × 10 + 0 × 1

**155.** ascending order – (b), (c), (a), (d), descending order – (d), (a), (c), (b)

**156.** 142,800,000 **157.** 589 millions, 589,000,000

**158.** Earth, 2100000m

**159.** Tripura-Three million, one hundred ninty-nine thousand, two hundred three; Meghalaya-Two million, three hundred eighteen thousand, eight hundred twenty two.

**160.** 4230 **161.** 67530 **162.** 161266 **163.** 46120 **164.** 1

**165.** 6, 4, 2 **166.** 9979003568 **167.** 85041 **168.** 969987

**169.** 179370 **170.** 32198 **171.** 12000 **172.** 98756, 10253

**173.** 2768g or 2kg 768g **174.** 150 boxes **175.** 50000 **176.** 30

**177.** (a)1400 (b) 1200 (c) 14700 (d) 31300

**178.** (a) 2590 (b) 69100 (c) 6380 (d) 61790

**179.** (a) 2700 (b) 34100 (c) 97200 (d) 1098100

**180.** 17000 **181.** 5600000 **182.** 457755 **183.** 24480

**184.** 220 **185.** 204 **186.** 15000kg **187.** Rs. 454102

**188.** 960000g **189.** 62 **190.** 60 L **191.** 4521

**192.** 1324 **193.** Rs. 4 **194.** A – 35, B – 28, C – 20

**195.** 12 **196.** 52 **197.** 30, 60, 90.

**198.** Both the numbers are divisible by 11.

**199.** All the three number are divisible by 4. **200.** 5652.

## Unit 2

**1.** (A) **2.** (D) **3.** (B) **4.** (B) **5.** (B) **6.** (B)

**7.** (B) **8.** (D) **9.** (C) **10.** (B) **11.** (D) **12.** (D)

**13.** (B) **14.** (C) **15.** (C) **16.** (B) **17.** Reflex angle

**18.** 9 **19.** Parallel **20.** 0 and S , T and N, M, P, Q, R

**21.** (a) BD (b) CD (c) C (d) D (e) 4

**22.** (a) Right (b) acute (c) obtuse

**23.** 5, ΔAOB, ΔAOC, ΔACD, ΔCOD, ΔABC

**24.** 12; ∠OAB, ∠OBA, ∠OAC, ∠OCA, ∠OCD, ∠ODC, ∠AOB, ∠AOC, ∠COD, ∠DOB, ∠BAC, ∠ACD **25.** Four **26.** Two, Four

**27.** Two, **28.** One **29.** Three **30.** Four **31.** Ray AB

**32.** T **33.** F **34.** F **35.** T **36.** F **37.** T

**38.** F **39.** F **40.** F **41.** F

**42.** AB, AC, AD, AE, BC, BD, BE,CD, CE, DE

**43.** AB, BC, CD, DE, EA **44.** X, Z, Y

**45.** Vertices – A, B, C, D and E; line segments – AB, AC, AD, AE, BC, CD, DE

**46.** ∠EAD, ∠AEF, ∠EFD, ∠ADF, ∠DFC, ∠DCF, ∠CDF, ∠BEF, ∠BFE, ∠EBF, ∠FBC, ∠FCB, ∠BFC, ∠ABC, ∠ACB

**47.** (a) ∠CBD, (b) ∠DBE, (c) ∠EBA, (d) ∠CBE, (e) ∠DBA, (f) ∠CBA, (g) ∠DBA

**48.** (i) A, B, C, AB, BC, AC (ii) A, B, C, D, AB, BC, CD, DA

(iii) A, B, C, D, E, AB, BC, CD, DE, EA

(iv) A, B, C, D, E ,F, AB, CD, EF

**49.** (ii) O, OA and OB (iii) D, DC and DB

**50**. (a) No (b) No **51.** Yes **52.** Yes

**54.** Yes points B and C lie in the interior of ∠2 also.

**55.** (b) and (c) **56.** (a) (ii) (b) (ii) and (iii) (c) (iii) (d) (i)

**57.** Both figures have 3 line segments. No. It is not a closed figure

**58.** No **59.** (a) ∠AEB, ∠ADE, ∠BAE, ∠BCE (b) ∠BCD, ∠BAD

**60.** (a) Yes (b) No (c) No.

**61.** (a) AC (b) AE (c) ED (d) BE

**62.** (a) ∠ABD (b) ∠RTS (c) ∠ACD and ∠ACB

(d) ∠RTW and ∠RTS (e) ∠AED, ∠AEB, ∠BEC and ∠DEC

(f) ∠AEC (g) ∠ACD (h) ∠AKO, ∠AKP, ∠BKO, ∠BKP

**63.** (a) ∠ADB = ∠CDB (b) ∠ABD = ∠CBD

(c) ∠ADC = ∠BDC, ∠CAD = 90°, ∠CBD = 90°

**64.** Two, AC and AD **65.** Two **66.** One **67.** Three A, B, C

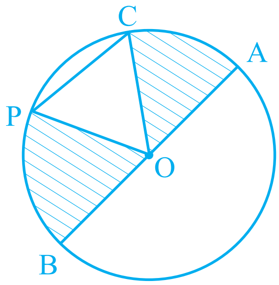
**68.** Three, AB, BC, AC **69.** Four, A, B, C, D

**70.** Six, AB, AC, AD, BC, BD, CD **71.** Five A, B, C, D, E

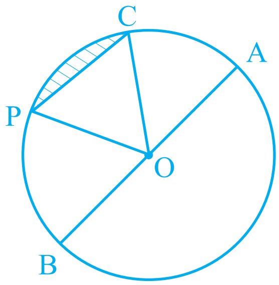
**72.** Ten, AB, AD, AE, AC, BD, BE, BC, DE, DC, EC

**73.** (a) CP and AB (b) OA, OB, OC, OP (c) CP

(d)



(e)



**74.** (a) Yes. The sum of two acute angles may be less than a right angle.

(b) Yes. The sum of two acute angles may be equal to a right angle.

(c) Yes. The sum of two acute angles may be more than a right angle.

(d) No. The sum of two acute angles is always less than 180°.

(e) No. The sum of two acute angles is always less than 180°.

**75.** (a) Yes. The sum of two obtuse angles is always greater then 180°.

(b) No. The sum of two obtuse angles is always greater than 180°, but less than 360°.

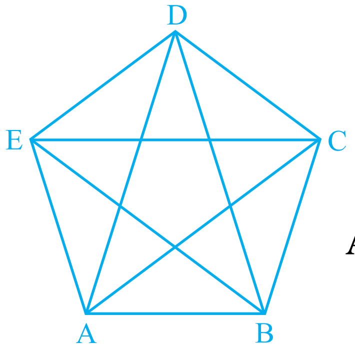
**76.** (a) Vertices A, B, C, D, E, F

(b) Edges AB, AC, BC, BD, DF, FC, EF, ED, AE

(c) Faces ABC, DEF, AEFC, AEDB, BDFC

**77.** No edges, No faces and No vertices.

**78.**



AC, AD, BE, BD, CE

## Unit 3

| | | | | | |
|---|---|---|---|---|---|
| **1.** (B) | **2.** (A) | **3.** (C) | **4.** (A) | **5.** (D) | **6.** (B) |
| **7.** (D) | **8.** (B) | **9.** (B) | **10.** (A) | **11.** (A) | **12.** (C) |
| **13.** (B) | **14.** (A) | **15.** (D) | **16.** (C) | **17.** (B) | **18.** F |
| **19.** F | **20.** F | **21.** F | **22.** T | **23.** F | **24.** T |
| **25.** T | **26.** T | **27.** F | **28.** F | **29.** T | **30.** T |
| **31.** T | **32.** T | **33.** F | **34.** F | **35.** T | **36.** T |
| **37.** T | **38.** F | **39.** F | **40.** Left | **41.** Right | **42.** –14 |

**43.** 1 **44.** 0 **45.** 9 **46.** –14 **47.** 30 **48.** –170

**49.** –5454 **50.** < **51.** > **52.** < **53.** < **54.** >

**55.** > **56.** = **57.** > **58.** >

**59.** (i) -(B) (ii) -(E) (iii) -(B) (iv) -(A) (v) -(B)

**60.** (a) –5 (b) – 25 (c) 20 (d) – 60 (e) – 8 (f) – 7 (g) 0 (h) 0

**61.** (a) +200 (b) –100 (c) +10 (d) 0

**62.** (a) Increase in size (b) Success (c) loss of Rs. 10

(d) 1000 B.C. (e) Fall in water level (f) 60 km North

(g) 10 m below the danger mark of river Ganga.

(h) 20 m above the danger mark of river Brahmaputra.

(i) Losing by a margin of 2000 votes.

(j) Withdrawing Rs 100 from the Bank. (k) 20°C fall in temperature.

**63.** 7°C **64.** 0 – 1 – 2 – 3 – 4 – 5 – 6 + 7 + 8 + 9 (One possible answer).

**65.** 0 **66.** 1 + 2 + 3 + 6 + (– 2) + (– 3) (One possible answer).

**67.** 2 **68.** – 1 **69.** – 2, – 3 (any two negetive integers can be takan).

**70.** 2, 0 ( any two integers with one of them as 0).

**71.** (a), (b) and (c). The number on the right is greater.

**72.** 1 + 2 – 3 + 4 +5 – 6 + 7 + 8 – 9 = 9

**73.** – 5, – 3, – 2, 0, 1, 4 **74.** 0, – 1, – 3, – 3, – 4, – 6 **75.** 0, 6

**76.** – 140, – 130, – 120, – 110, – 101 (there can be many answers).

**77.** ( 1, 3), ( 0, 4), (– 1, 5), (– 2, 6) **78.** 72 **79.** 10

**80.** (a) Left (b) Right (c) Left **81.** (a) – 1 (b) – 1 (c) – 4

**82.** 161 **83.** 1207

## Unit 4

**1.** (D) **2.** (B) **3.** (A) **4.** (B) **5.** (C) **6.** (C)

**7.** (B) **8.** (C) **9.** (A) **10.** (B) **11.** (C) **12.** (B)

**13.** (C) **14.** (B) **15.** (C) **16.** (C) **17.** (C) **18.** (D)

**19.** (B) **20.** (A) **21.** Whole **22.** proper **23.** like **24.** mixed

**25.** improper **26.** proper **27.** like **28.** unlike **29.** $\frac{2}{5}$

**30.** $\frac{1}{2}$ **31.** equivalent **32.** $\frac{58}{7}$ **33.** $12\frac{3}{7}$ **34.** 9.26

**35.** $16\frac{1}{4}$ or $\frac{65}{4}$ **36.** 0.28 **37.** $\frac{58}{9}$ **38.** $\frac{43}{14}$ **39.** 12 **40.** 8

**41.** 14.28 **42.** 6.08 **43.** Rs 25 **44.** 0.33 **45.** T **46.** F

**47.** T **48.** F **49.** F **50.** T **51.** F **52.** T

**53.** F **54.** T **55.** F **56.** T **57.** F **58.** F

**59.** F **60.** T **61.** F **62.** T **63.** T **64.** F

**65.** T **66.** < **67.** < **68.** = **69.** < **70.** <

**71.** = **72.** $\frac{7}{8}$ **73.** $\frac{4}{15}$ **74.** $\frac{1}{6}$

**75.** 12.104, 12.122, 12.142, 12.214, 12.401 **76.** 0.8531

**77.** 0.2345 **78.** 0.55 **79.** $\frac{20}{3}$ **80.** 3.4 **81.** $\frac{41}{1000}$ **82.** $6\frac{3}{100}$

**83.** 5.201kg **84.** Rs 20.09, Rs $20\frac{9}{100}$ **85.** 15.37 m, $\frac{1537}{100}$ m

**86.** 2.435km, $2\frac{87}{200}$km **87.** $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}$ **88.** $\frac{7}{8}, \frac{6}{7}, \frac{4}{5}, \frac{3}{4}$ **89.** $\frac{33}{44}$

**90.** $\frac{60}{72}$ **91.** $16\frac{1}{8}$ **92.** 20.8 **93.** 75.20 **94.** 28.0 **95.** $\frac{25}{24}$

**96.** $7\frac{1}{8}$ **97.** $\frac{1}{3}$ **98.** $2\frac{7}{9}$ **99.** $5\frac{1}{4}$ **100.** $7\frac{3}{4}$ **101.** $15\frac{1}{4}$

**102.**64 **103.** $\frac{889}{80}$cm **104.** $\frac{9}{10}$ **105.** $\frac{3}{5}$ **106.** $\frac{1}{6}$ **107.** 24.5

**108.** 9.850kg **109.** 0.011, 0.101, 0.110, 1.001 **110.** 22.022

**111.** (i) $\frac{11}{70}$ (ii) $\frac{1}{10}$ **112.** Milk, Rice, $\frac{30}{53}$ **113.** $\frac{2}{3}$ **114.** $1\frac{3}{4}$ m

**115.** $47\frac{5}{8}$ kg **116.** $27\frac{1}{4}$ litres **117.** $2\frac{3}{4}$ litres **118.** $110\frac{1}{20}$ cm

**119.** $4\frac{5}{8}$ km **120.** $1\frac{1}{4}$ kg **121.** $2\frac{1}{4}$ m

**122.** (a) Equal denominators too have been added.

(b) Numerators and denominators have been added.

**123.** 2.6 metres **124.** (i) (D) (ii) (A) (iii) (E) (iv) (B) **125.** $\frac{5}{6}, \frac{6}{6}$

**126.** $\frac{3}{7}, \frac{4}{7}, \frac{7}{7}$ **127.** $\frac{9}{22}$ and $\frac{5}{22}$ **128.** $\frac{1}{2}$

**129.** (i) Bag I (ii) Bag II (iii) Bag III (iv) Bag I (v) Bag I (vi) Bag I

(vii) Bag II (viii) Bag I (ix) Bag I (x) Bag I

## Unit 5

**1.** (D) **2.** (D) **3.** (D) **4.** (D) **5.** (C) **6.** F

**7.** F **8.** F **9.** T **10.** F **11.** T **12.** F

**13.** T **14.** data **15.** tally **16.** pictograph **17.** bars

**18.** uniform, equal **19.** 𝍸 || **20.** 60 **21.** 60, 7.5

**22.**

| Grades | Tally marks |
|---|---|
| A | \|\|\| |
| B | 𝍸 \|\| |
| C | 𝍸 𝍸 |
| D | 𝍸 \| |
| E | \|\|\|\| |

**23.**

| Number of two wheelers | Tally marks |
|---|---|
| 0 | \|\|\| |
| 1 | 𝍸 𝍸 𝍸 𝍸 𝍸 \|\|\| |
| 2 | 𝍸 𝍸 \|\|\|\| |
| 3 | \|\|\|\| |
| 4 | \| |

19 Families

**24.**

| **Lengths in cm** | **Tally marks** | **Number of carrots** |
|---|---|---|
| 15 | 𝍸 | 5 |
| 18 | 𝍸 \| | 6 |
| 20 | 𝍸 \|\|\|\| | 9 |
| 21 | 𝍸 \| | 6 |
| 22 | \|\|\|\| | 4 |

(a) 10 (b) 20, 22

**25.**

| **Responses** | **Tally Marks** | **Number of Responses** |
|---|---|---|
| Doctor | 𝍸 𝍸 | 10 |
| Engineer | 𝍸 \| | 6 |
| Pilot | 𝍸 \|\|\| | 8 |
| Officer | 𝍸 \| | 6 |

**26.** (a)

| **Games** | **Tally marks** | **Number of Students** |
|---|---|---|
| Football | 𝍸 𝍸 \|\|\| | 13 |
| Cricket | 𝍸 \|\|\|\| | 9 |
| Kho-Kho | 𝍸 \| | 6 |
| Hockey | 𝍸 \|\|\| | 8 |
| Tennis | \|\|\|\| | 4 |

(b) Football (c) Tennis.

**27.** Shirt size 32 : 5, Shirt size 34 : 𝍸 |||, Shirt size 36 : 7

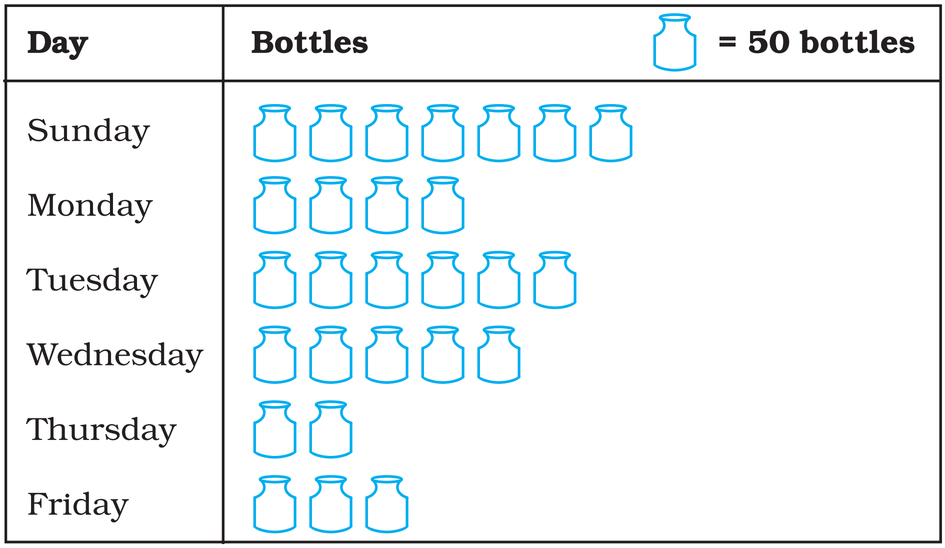
Shirt size 38 : 𝍸, Shirt size 40 : 𝍸 ||

**28.** (a) 400 (b) Patel (c) Saikia (d) Rao, Roy **29.** (a) Metal (b) Glass (c) Rubber (d)160 **30.** (a) X (b) VIII (c) 40 (d) VI (e) 160

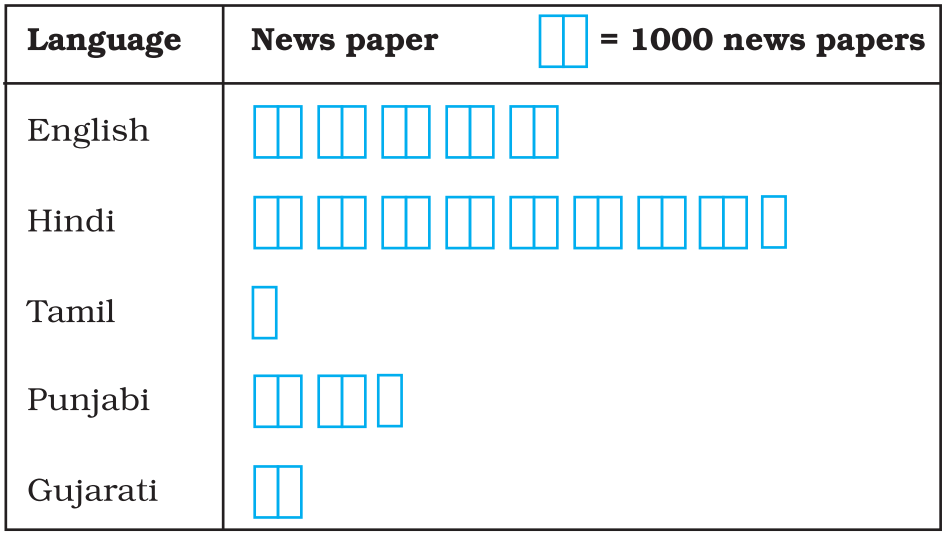
**31.** (a) Hindi (b) 175 (c) 425

**32.** (a) 6000sqkm (b) Raigarh and Jashpur (c) Four

**33.**



**34.**



**36.** (a) LPG (b) 10 (c) 5000 **37.** (a) 1300 (b) 300 (c) 4, 5, 6, 7, 8 (d)7 (e) 8 (f) False **38.** (a) 295 (b) Delhi (c) Chennai (d) Patna, Jaipur, Delhi, Guwahati (e) 50

**39.** (a) N.H. 2 (b) N.H. 10 (c) 900km (d) N.H. 8 **40.** (a) 1000 (b) Marathi, Bengali (c) 800

**41.** (a) Number of students in different Acadamic years. (b) 2005 – 06 (c) 2004 – 05 (d) 2003 – 04 (e) 2004 – 05

## Unit 6

**1.** (D) **2.** (B) **3.** (A) **4.** (A) **5.** (D) **6.** (B)

**7.** (A) – (iv), (B) – (i), (C) – (ii), (D)– (iii)

**8.** (A) – (iii), (B) – (iii), (C) – (ii), (D) – (i)

**9.** BM + MD + DE + EN + NG + GH **10.** Area. **11.** 16sq cm

**12.** (a) 12sq units (b) 16sq units **13.** (a) 100 (b) 1 (c) 1, 100
(d) 10000 **14.** T **15.** F **16.** F **17.** T **18.** F

**19.** F **20.** T **21.** 2cm **22.** 14cm **23.** 15cm, 5cm

**24.** 17m **25.** 13sq units **26.** 70m **27.** 500m **28.** 54cm

**29.** 44 Units **30.** 2km 400m, 5 times **31.** 400m **32.** 80m

**33.** 308cm **34.** 8cm, 10cm, 10cm; 8cm, 8cm, 12cm

**35.** 1cm × 19cm, 2cm × 18cm, 3cm × 17cm, 4cm × 16cm,
5cm × 15cm, 6cm × 14cm, 7cm × 13cm, 8cm × 12cm,
9cm × 11cm, 10cm × 10cm **36.** 10cm **37.** 20, 20m

**38.** 36sq m, 30m **39.** 1340m, Rs 26800, Rs 400000

**40.** Rs 50 **41.** (a) 32 units (b) 60 units **42.** 6300sq cm

**43.** 20cm, 280cm **44.** Anmol's chart paper **45.** 12, 240, 2880

**46.** 100 **47.** Square field **48.** 40000sq m **49.** 4 times

**50.** 84, 240cm$^2$ **51.** Rs 5400 **52.** 126sq m, $\frac{1}{8}$, 1:7

**53.** 216sq cm **54.** 56 cm **55.** 212 **56.** 20m

**57.** 256sq m, (a) 128sq m, (b) 128sq m

**58.** (a)

| Dimensions in cm | Area in cm$^2$ | Dimensions in cm | Area in cm$^2$ |
|---|---|---|---|
| 17 × 1 | 17 | 12 × 6 | 72 |
| 16 × 2 | 32 | 11 × 7 | 77 |
| 15 × 3 | 45 | 10 × 8 | 80 |
| 14 × 4 | 56 | 9 × 9 | 81 |
| 13 × 5 | 65 | | |

(b)

| Dimensions in cm | Perimeter in cm$^2$ |
|---|---|
| 36 × 1 | 74 |
| 18 × 2 | 40 |
| 12 × 3 | 30 |
| 9 × 4 | 26 |
| 6 × 6 | 24 |

**59.** Area: (i) 11cm$^2$ (ii) 13cm$^2$ (iii) 13cm$^2$

Perimeter: (i) 18cm (ii) 28cm (iii) 28cm **60.** 4sq cm, 34cm

## Unit 7

**1.** (B) **2.** (C) **3.** (A) **4.** (C) **5.** (B) **6.** (B)

**7.** (B) **8.** (A) **9.** (C) **10.** (C) **11.** (B) **12.** (A)

**13.** (C) **14.** (A) **15.** (A) **16.** (A) **17.** (C) **18.** (A)

**19.** (B) **20.** (A) **21.** (A) **22.** (A) **23.** (D) **24.** $40h$

**25.** $\frac{70}{p}$ **26.** $8d + 2$ **27.** 3 **28.** $-9$ **29.** $x = y + 7$

**30.** $3x + 8$ **31.** $\frac{x}{2}$ **32.** $7w$ **33.** $12x + 2000$

**34.** $10t + u$ **35.** $p$ **36.** $100x$ **37.** $1000p$ **38.** $100x$ **39.** $n + 7$

**40.** $100 - f$ **41.** F **42.** T **43.** T **44.** F **45.** T

**46.** F **47.** T **48.** F **49.** T **50.** T **51.** T

**52.** F **53.** F **54.** F **55.** F **56.** $2x + 1$ **57.** $t - 20$

**58.** $n + 1$ **59.** $3m$ **60.** $kn$ **61.** $x + 1$ **62.** $2n + 1$ and $2n + 3$

**63.** $2m$ and $2m + 2$ **64.** $5n$ **65.** $\frac{x}{x+1}$

**66.** $20y$, where $y$ is height of Empire State Building. **67.** $2p + 3$

**68.** $13 - (-3)\,z$ $(=13+3z)$ **69.** $10 + \frac{p}{11}$ **70.** $3x + 1$ **71.** $10 - 6q$

**72.** $3y + 4 = 10$, $2x - 3 = 1$ **73.** $2t + 3 = 3$ **74.** $x + 1 = 0$

**75.** The cost of pen is 5 times the cost of a pencil.

**76.** Amount left with Leela is Rs 10,000 more than the amount she contributed towards Prime Minister's Relief fund.

**77.** Age of Kartik's Father is seven times the age of Kartik.

**78.** The difference between maximum and minimum temperature on a day in Delhi was 10°C.

**79.** Last year Jay planted 10 more plants than twice the number of plants planted by John.

**80.** Sharad reduced the consumption of tea per day by 5 cups after having some health problem.

**81.** The number of students dropping out this year is 30 less than the number of students dropped last year.

**82.** The price of petrol per liter decreased this month by Rs 5 than its price last month.

**83.** Khader's monthly salary increased by Rs 1000 in the year 2006 than in 2005.

**84.** The number of girls enrolled this year was 10 less than 3 times the girls enrolled last year.

**85.** (a) $2x - 13 = 3$ (b) $\frac{x}{5} = x - 5$ (c) $\frac{2x}{3} = 12$ (d) $2x + 9 = 13$ (e) $\frac{x}{3} - 1 = 1$

**86.** (a) $p = 3a$ (b) $d = 2r$ (c) $s = c + p$ (d) $a = p + i$

**87.** (i) $x - 2$ (ii) $x + 35$ (iii) $x + 32$ (iv) $8x$

**88.**

| $m$ | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| $2m - 5$ | $-5$ | $-3$ | $-1$ | 1 | 3 |

Solution is $m = 2$

**89.** $50p - 1800$ **90.** $8x + 100$L **91.** $m \times m$ sq cm.

**92.** The perimeter of a triangle is the sum of all its sides.

**93.** The perimeter of a rectangle is twice the sum of its length and breadth.

**94.** $(m + 40)$kg **95.** (i) $2(r + t) + 10$ (ii) $15x$ (iii) $(8rt + 4000)$sq cm (iv) Rs $23x$

**96.** (i) Sunita : $x + 4$, Geeta : $2\ x + 4$, where $x$ is the present age (in years) of Sunita. (ii) Sunita : $x - 3$, Geeta : $2x - 3$

**97.** (i) – (B), (ii) – (E), (iii) – (C), (iv) – (C), (v) – (A)

## Unit 8

**1.** (A) **2.** (D) **3.** (D) **4.** (A) **5.** (C) **6.** (D)

**7.** (C) **8.** (D) **9.** (A) **10.** (C) **11.** 12 **12.** 4

**13.** 10 **14.** 18, 60 **15.** 28, 81, 52 **16.** T **17.** T **18.** F

**19.** F **20.** F **21.** T **22.** F **23.** T **24.** T

**25.** T **26.** F **27.** T **28.** F **29.** F **30.** T

**31.** F **32.** T **33.** F **34.** F **35.** division

**36.** 28 **37.** 18 **38.** proportion **39.** 3 : 7 **40.** 1 : 6

**41.** 3 : 1 **42.** one **43.** same **44.** 100 paise OR 1 Rupee

**45.** 149 : 160 **46.** 100gm **47.** 4 : 5 **48.** (i) and (ii)

**49.** 10 : 21 **50.** 14kg **51.** 16cm and 40cm **52.** 5 : 8 **53.** 933

**54.** (a) 15 : 1 (b)1 : 14 **55.** (a) 7 : 16 (b) 9 : 16

**56.** (a) 7 : 11 (b) 7 : 18 (c) 11 : 18 **57.** 7 : 40 **58.** 2 : 3 **59.** 1 : 17

**60.** 18 m **61.** $4\frac{2}{3}$ cups **62.** 15 **63.** (a) 9 : 4 (b) 4 : 13

**64.** (a) 4 : 1 (b) 1 : 3 **65.** 65 North Indian and 52 South Indian foodstalls.

**66.** 23 : 47 **67.** 12 hours **68.** Yes **69.** (a) 13 : 5 (b) 2 : 11 (c) 13 : 35

**70.** 54kg and 30kg **71.** $4\frac{1}{2}$ kg **72.** (i) 2 : 5 (ii) 2 : 1 (iii) 1 : 2 (iv) 2 : 5 **73.** 36 and 64 **74.** 1 : 2, 1 : 2 **75.** 3 : 1

**76.** (a) 5 : 9 (b) 3 : 10 **77.** (a) 5 : 8 (b) 8 : 7 (c) 13 :7

**78.** 400km **79.** (a) Rs 36000 (b) 14 months. **80.** 12 hectares

**81.** 30° **82.** Rs 51 **83.** Rs 1260 **84.** 14810 **85.** 19. 76kg

**86.** 3 cups **87.** 540 **88.** 1 : 5 **89.** 3 : 5

## Unit 9

**1.** (B) **2.** (A) **3.** (D) **4.** (C) **5.** (A) **6.** (B)

**7.** (D) **8.** (B) **9.** (B) **10.** (C) **11.** (C) **12.** (B)

**13.** (A) **14.** (B) **15.** (B) **16.** (A) **17.** (D) **18.** same

**19.** one **20.** equal **21.** unequal **22.** Line segment, 5cm

**23.** Angle, 80° **24.** $l$ **25.** equal **26.** 5 **27.** right, triangle

**28.** 0, 8 **29.** 3 **30.** 7 (1, 2, 4, 5, 6, 7, 9)

**31.** 7 ( A, M, U, V, W, Y, T) **32.** 5 (B, C, D, E, K) **33.** 4 (H, I, O, X)

**34.** 10 ( F, G, J, L, N, P, Q, R, S, Z) **35.** perpendicular **36.** 6

**37.** $n$ **38.** one **39.** no **40.** one **41.** diagonals

**42.** mid points **43.** T **44.** F **45.** T **46.** F

**47.** T **48.** T **49.** T **50.** F **51.** T **52.** F

**53.** T **54.** T **55.** F **56.** F **57.** T **58.** F

**59.** F **60.** T **61.** F **62.** Yes, One line of symmetry.

**63.** AC, BD **64.** H, I, O, X **65.** S

**66.** S (Zero), Y (One), M (One), E (One), T (One), R (Zero)

**67.** (i) → (f), (ii) → (c), (iii) → (f), (iv) → (d), (v) → (e), (vi) → (a), (vii) → (g)

**68.** (i) 2, (ii) 1, (iii) 0, (iv) 1, (v) 1 (vi) 0

**69.** Yes **70.** (a) Yes, (b) Yes, (c) Yes, (d) Yes **72.** Yes, Yes, Yes

**73.** Yes **80.** One **81.** One **82.** Yes

# Notes

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