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) $7 \times 10000 + 4 \times 1000 + 8 \times 100 + 3 \times 10 + 6 \times 1$

(b) $5 \times 100000 + 7 \times 10000 + 4 \times 1000 + 0 \times 100 + 2 \times 10 + 1 \times 1$

(c) $8 \times 1000000 + 9 \times 100000 + 0 \times 10000 + 7 \times 1000 + 0 \times 100 + 1 \times 10 + 0 \times 1$

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

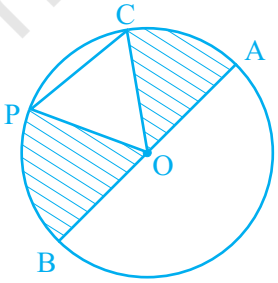
68. Three, AB, BC, AC **69.** Four, A, B, C, D

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

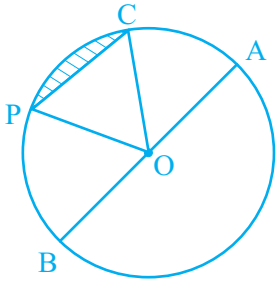
72. Ten, AB, AD, AE, AC, BD, BE, BC, DE, DC, EC

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°.

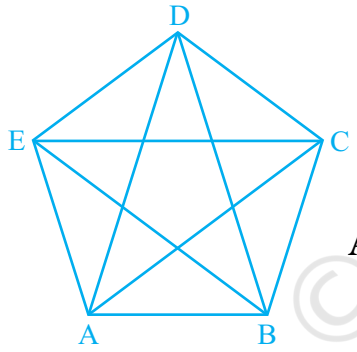
76. (a) Vertices A, B, C, D, E, F

(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.

Day	Bottles = 50 bottles
Sunday	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

34.

Language	News paper = 1000 news papers
English	
Hindi	
Tamil	
Punjabi	
Gujarati	

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
17 × 1	17
16 × 2	32
15 × 3	45
14 × 4	56
13 × 5	65

Dimensions in cm	Area in cm^2
12 × 6	72
11 × 7	77
10 × 8	80
9 × 9	81

(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.** $10 - 6\, q$

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. 50 p – 1800 **90.** 8 x + 100L **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 : $2x + 4$, 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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