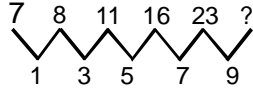


NATIONAL TALENT SEARCH EXAMINATION-2018-19, MADHYA PRADESH

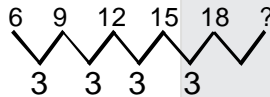
MENTAL ABILITY TEST (MAT) HINTS & SOLUTIONS

1. (B)



$23 + 9 = 32$

2. (A)



$18 + 3 = 21$

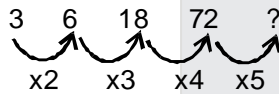
3. (D)

2, 5, 10, 50, 500, ?

Product of two previous numbers

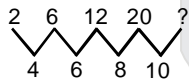
$50 \times 500 = 25000$

4. (D)



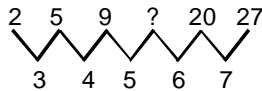
360

5. (B)



$20 + 10 = 30$

6. (A)



$9 + 5 = 14$

7. (B)

1, 4, 9, 16, 25, 36

Square number

$7^2 = 49$

8. (B)

5, 15, 45, 135, ?

Multiply by 3

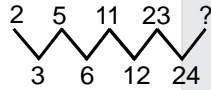
$$135 \times 3 = 405$$

9. (A)

3, 4, 9, 16, 27, ?

Alternative multiply of 3 & 4.

10. (A)



$$23 + 24 = 47$$

11. (A)

Gold → IQNF

WIND → YKPF

+2 in each letter

12. (C)

ANT → 1 + 14 + 20

35

13. (A)

KITE → JHSD

STRONG → RSQNMF

-1 in each letter

14. (D)

HEMA → 27

VELU →

$$22 + 5 + 12 + 21 = 60.$$

15. (D)

RARE → SBSF

AREA → BSFB

+1 in each letter

16. (C)

Student (Only living thing)

17. (C)
Scooter (Only 2 wheels)
18. (D)
Dust – Vacuum Cleaner
19. (D)
September (only month which have 30 days from options)

20. (C)
 $24 = 3^3 - 3$
 $60 = 4^3 - 4$
 $124 = 5^3 - 1$
 $210 = 6^3 - 6$

21. (C)
22. (D)
Green
23. (A)
Good → Pik
24. (B)
and → ne
25. (B)
Ram → Se



26. (A)
 Sulochana's age = x year
 His mother age = y year
 $y - 10 = 4(x - 10)$
 $4x - y = 30$ (1)
 $y + 10 = 2(x + 10)$
 $2x - y = -10$ (2)
 equation no. 1 & 2
 $2x = 40$
 $X = 20$ year

27. (Bonus)

Rahim's age = x year

His uncle age = y year

$$y - x = 30 \quad \dots\dots(1)$$

$$(y - 7) + (x - 7) = 66$$

$$x + y = 80 \quad \dots\dots(2)$$

equation no. 1 & 2

$$2y = 110$$

$$y = 55 \text{ year}$$

28. (C)

$$7x + 5y = 38$$

$$x = 4, y = 2$$

x- orange

y- water melon

29. (C)

58 sec.

30. (A)

Ripe mangoes = x

Raw mangoes = y

$$x = 3y$$

$$x + y = 68$$

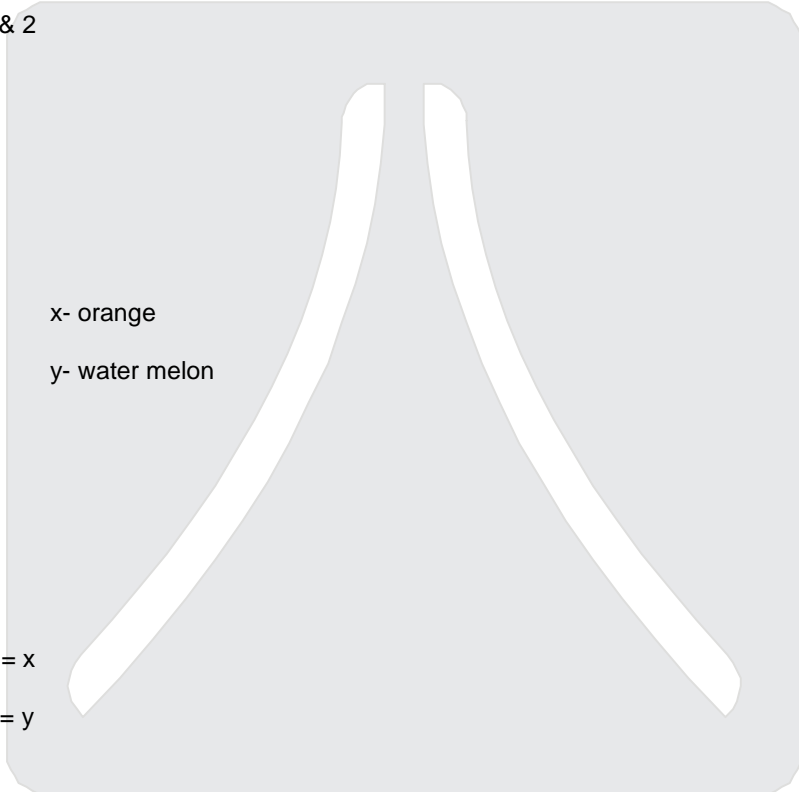
$$3y + y = 68$$

$$4y = 68$$

$$y = \frac{68}{4} = 17.$$

31. (B)

South East



32. (C)

4 Hour → 1km

4:20 - 8:20 → 2 km

8:40-12:40 → 3 km

13:00-15:00 → 3.5 km

15 Hours

33. (B)

$$60 + \frac{1}{2} \times 15$$

$$60 + 7.5$$

$$= 67.5^\circ$$

34. (B)

$$\theta = \left| \frac{11}{2} \text{min.} - 30 \times \text{Hr} \right|$$

8:30 PM

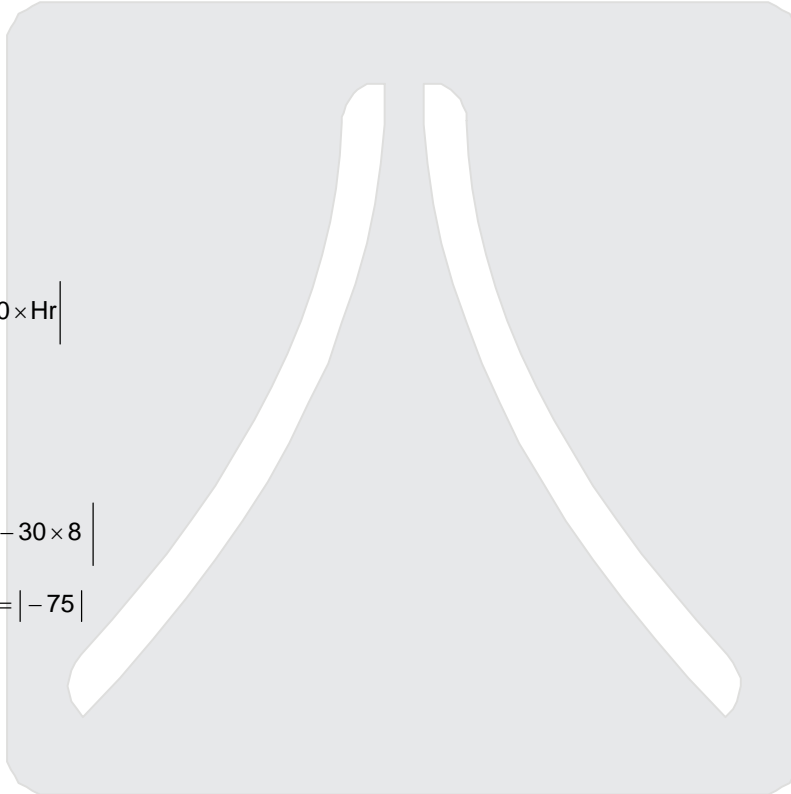
Min. → 30 Min

Hr → 8 Hr

$$\text{So, } \theta = \left| \frac{11}{2} \times 30 - 30 \times 8 \right|$$

$$= |165 - 240| = |-75|$$

$$\theta = 75^\circ.$$



35. (B)

Monday

36. (B)

840

37. (D)

4451

38. (C)

Three

783, 783, 782

39. (B)

4,7 are constant

40. (D)

More than 3

41. (D)

13,11,5,0,1,2,6,4,8,3,0,7,9,3,7

42. Bonus

Q → 2

R → 2

L → 2

T → 2

43. (C)

C⁻

↓

A → B⁻ ↔ D⁺

C is mother in law of D.

44. (D)

O⁺

↑

S

↑

O⁻

↑

?

45. (A)

-3 in each letter

FULFNHW

46. (D) 7 # @ %

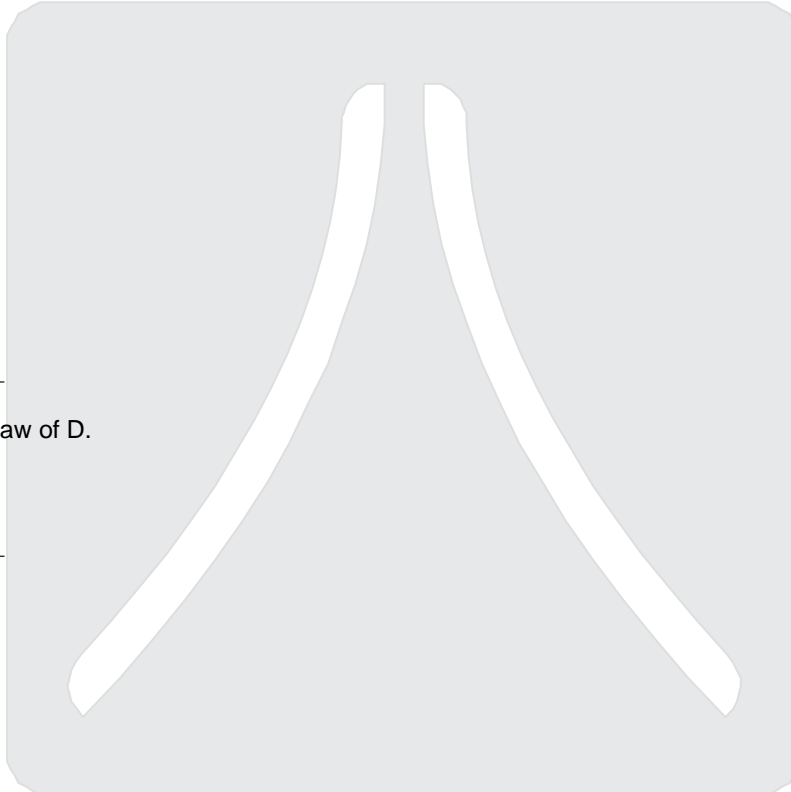
47. (A)

D E C A Y

4 + 5 + 3 + 1 + 25 = 38

48. (B)

Jug



49. (B)

ROBE → 5136

BIND → 3792

RIDE → 5726

50. (B) Cot

51. (B)

Her rank from last is

$$= [46 - 12] + 1$$

$$= 35.$$

52. (B)

Mihir, Prabir, Mohit, Suresh, Sanchit

1 2 3 4 5

53. (B) cloth

54. (D) xw

55. (B)

$$4 (n^3 : n)$$

56. (C) wood

57. (D) 64

58. (B) Sky

59. (A) Joy

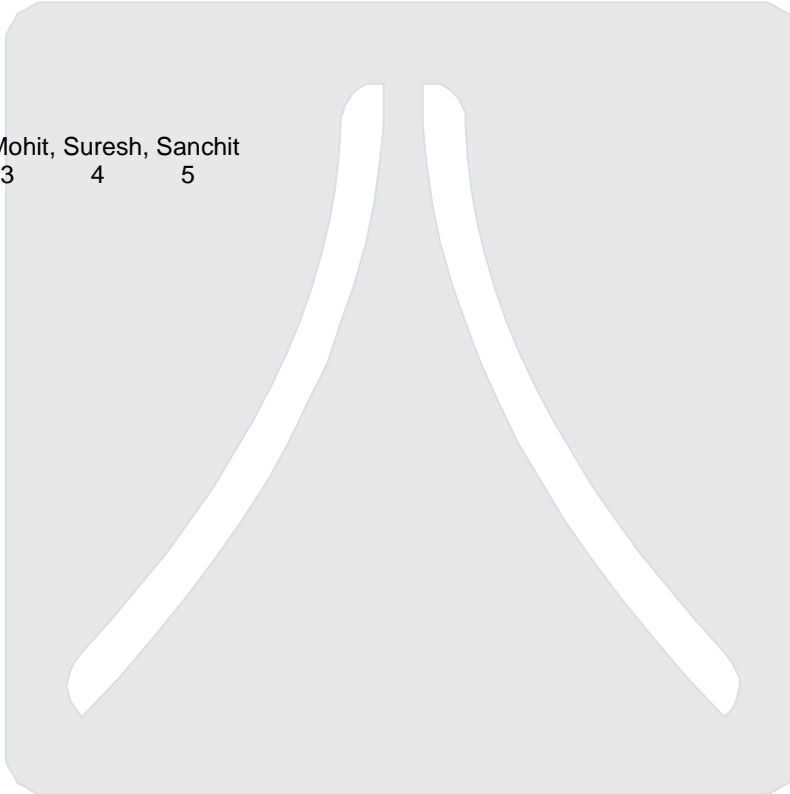
60. (B) watt

61. (A) Gandhi Nagar

62. (B) Yen

63. (C) Earthquake Intensity

64. (C)



65. (A) Badminton

66. (A)

67. (B)

68. (D)

69. (D)

70. (A)

71. (D)

$$40 + 12 \div 3 \times 6 - 60$$

$$40 + 4 \times 6 - 60$$

$$\frac{40 + 24}{1} - 60$$

$$64 - 60$$

4.

72. (D)

$$31 - 5 \div 2 \div 1 = 30$$

$$34 - 4 = 20$$

$$\frac{30 = 30}{1}$$

73. (C)

7 6 2 4

E A S T

74. (A)

$$96 \div 6 = 8 \times 2$$

$$16 = 16, .$$

75. (A)

$$12 V 4R 16P 8T 6 = ?$$

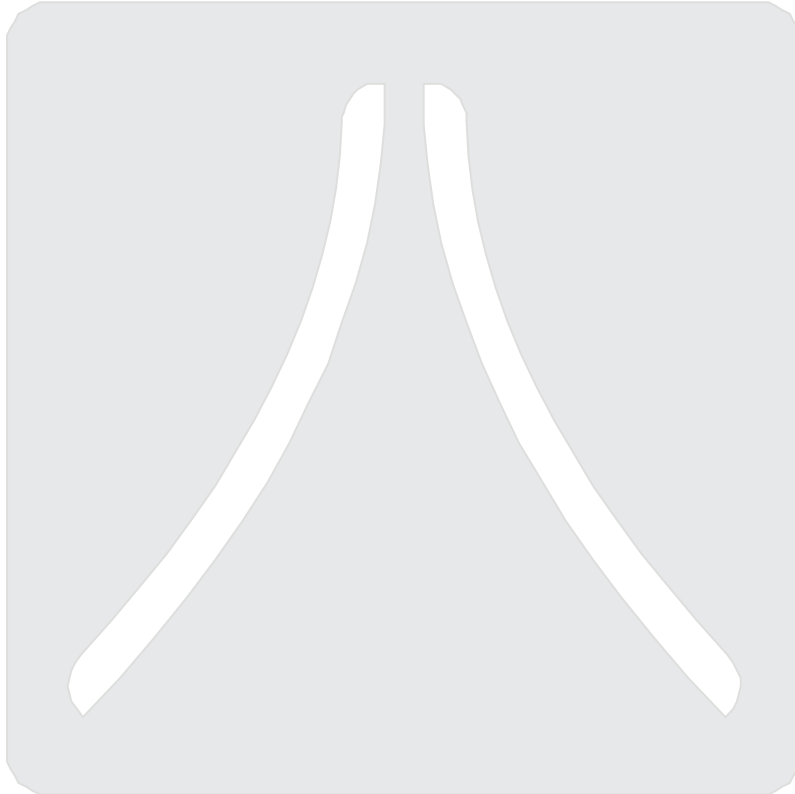
$$12 \times 4 + 16 \div 8 - 6$$

$$12 \times 4 + 2 - 6$$



18 x 2 - 6

- 50 - 6
44.
76. (A)
77. (D)
78. (A)
79. (C)
80. (B)
81. (C)
82. (A)
83. (B)
84. (A)
85. (C)
86. (D)
87. (A)
88. (D)
89. (B)
90. (C)
91. (A)
92. (B)
93. (C)
94. (C)
95. (C)
96. (A)
97. (C)
98. (C)
99. (B,C)
100. (B).



water image

