



THE MATH HUB

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QUANTITATIVE, LOGICAL, ANALYTICAL & MENTAL ABILITY MCQs

100 FULLY SOLVED MCQs

PPSC, FPSC & ONE PAPER EXAMS

NTS • CSS MPT • PMS • Government Job Tests

Numerical Logic • Comparisons • Matrices • Clocks • Calendars • Direction

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QUANTITATIVE, LOGICAL, ANALYTICAL & MENTAL ABILITY MCQs | 100 FULLY SOLVED MCQs

Fast Foundation for One-Paper Exams

Analogy Identify the operation that maps the first number to the second.

Ranking

$$N = L + R - 1$$

Clock at exact hour

$$\theta = 30^\circ \times \text{hour gap}$$

Day shift

Offset mod 7

Direction distance

$$d = \sqrt{x^2 + y^2}$$

Order logic Chain inequalities before choosing an option.

Numerical Analogies**MCQ 1**Complete the numerical analogy: $2 : 6 :: 4 : ?$.**A.** 20**B.** 24**C.** 16**D.** 22**Solution**

$$f(x) = x(x + 1), \quad f(4) = 20$$

Final Answer

20

MCQ 2Complete the numerical analogy: $3 : 12 :: 5 : ?$.**A.** 35**B.** 25**C.** 33**D.** 30**Solution**

$$f(x) = x(x + 1), \quad f(5) = 30$$

Final Answer

30

MCQ 3Complete the numerical analogy: $4 : 20 :: 6 : ?$.**A.** 36**B.** 46**C.** 42**D.** 48**Solution**

$$f(x) = x(x + 1), \quad f(6) = 42$$

Final Answer

42

MCQ 4Complete the numerical analogy: $5 : 30 :: 7 : ?$.**A.** 62**B.** 56**C.** 63**D.** 49**Solution**

$$f(x) = x(x + 1), \quad f(7) = 56$$

Final Answer

56

MCQ 5Complete the numerical analogy: $6 : 42 :: 8 : ?$.**A.** 72**B.** 80**C.** 64**D.** 79**Solution**

$$f(x) = x(x + 1), \quad f(8) = 72$$

Final Answer

72

MCQ 6Complete the numerical analogy: $7 : 56 :: 9 : ?$.**A.** 99**B.** 81**C.** 108**D.** 90**Solution**

$$f(x) = x(x + 1), \quad f(9) = 90$$

Final Answer

90

MCQ 7Complete the numerical analogy: $8 : 72 :: 10 : ?$.**A.** 100**B.** 121**C.** 110**D.** 120**Solution**

$$f(x) = x(x + 1), \quad f(10) = 110$$

Final Answer

110

MCQ 8Complete the numerical analogy: $9 : 90 :: 11 : ?$.**A.** 145**B.** 132**C.** 143**D.** 121**Solution**

$$f(x) = x(x + 1), \quad f(11) = 132$$

Final Answer

132

MCQ 9Complete the numerical analogy: $3 : 9 :: 7 : ?$.**A.** 49**B.** 56**C.** 42**D.** 54**Solution**

$$f(x) = x^2, \quad f(7) = 49$$

Final Answer

49

MCQ 10Complete the numerical analogy: $4 : 16 :: 9 : ?$.**A.** 90**B.** 72**C.** 89**D.** 81**Solution**

$$f(x) = x^2, \quad f(9) = 81$$

Final Answer

81

MCQ 11Complete: $4 : 7 :: 8 : ?$ using the same relation.

- A. 8 B. 24
C. 11 D. 14

Solution

$$4 + 3 = 7, \quad 8 + 3 = 11$$

Final Answer

11

MCQ 12Complete: $6 : 10 :: 9 : ?$ using the same relation.

- A. 36 B. 13
C. 17 D. 9

Solution

$$6 + 4 = 10, \quad 9 + 4 = 13$$

Final Answer

13

MCQ 13Complete: $5 : 10 :: 7 : ?$ using the same relation.

- A. 12 B. 17
C. 7 D. 35

Solution

$$5 + 5 = 10, \quad 7 + 5 = 12$$

Final Answer

12

MCQ 14Complete: $10 : 12 :: 12 : ?$ using the same relation.

- A. 16 B. 12
C. 24 D. 14

Solution

$$10 + 2 = 12, \quad 12 + 2 = 14$$

Final Answer

14

MCQ 15Complete: $7 : 13 :: 11 : ?$ using the same relation.

- A. 11 B. 66
C. 17 D. 23

Solution

$$7 + 6 = 13, \quad 11 + 6 = 17$$

Final Answer

17

MCQ 16Complete: $8 : 13 :: 13 : ?$ using the same relation.

- A. 65 B. 18
C. 23 D. 13

Solution

$$8 + 5 = 13, \quad 13 + 5 = 18$$

Final Answer

18

MCQ 17Complete: $9 : 16 :: 14 : ?$ using the same relation.

- A. 21 B. 28
C. 14 D. 98

Solution

$$9 + 7 = 16, \quad 14 + 7 = 21$$

Final Answer

21

MCQ 18Complete: $3 : 11 :: 6 : ?$ using the same relation.

- A. 22 B. 6
C. 48 D. 14

Solution

$$3 + 8 = 11, \quad 6 + 8 = 14$$

Final Answer

14

MCQ 19Complete: $11 : 15 :: 15 : ?$ using the same relation.

- A. 15 B. 60
C. 19 D. 23

Solution

$$11 + 4 = 15, \quad 15 + 4 = 19$$

Final Answer

19

MCQ 20Complete: $12 : 15 :: 16 : ?$ using the same relation.

- A. 48 B. 19
C. 22 D. 16

Solution

$$12 + 3 = 15, \quad 16 + 3 = 19$$

Final Answer

19

Number Matrices and Missing Entries

MCQ 21

Find the missing entry if each row follows the same rule:

(2, 3
to 6; 4, 5
to ?
).

- A. 20 B. 26
C. 14 D. 9

Solution

$$2 \times 3 = 6, \quad 4 \times 5 = 20$$

Final Answer

20

MCQ 22

Find the missing entry if each row follows the same rule:

(3, 4
to 12; 5, 6
to ?
).

- A. 36 B. 24
C. 11 D. 30

Solution

$$3 \times 4 = 12, \quad 5 \times 6 = 30$$

Final Answer

30

MCQ 23

Find the missing entry if each row follows the same rule:

(4, 5
to 20; 6, 7
to ?
).

- A. 36 B. 13
C. 42 D. 48

Solution

$$4 \times 5 = 20, \quad 6 \times 7 = 42$$

Final Answer

42

MCQ 24

Find the missing entry if each row follows the same rule:

(5, 2
to 10; 7, 3
to ?
).

- A. 10 B. 21
C. 27 D. 15

Solution

$$5 \times 2 = 10, \quad 7 \times 3 = 21$$

Final Answer

21

MCQ 25

Find the missing entry if each row follows the same rule:

(6, 4
to 24; 8, 5
to ?
).

- A. 40 B. 46
C. 34 D. 13

Solution

$$6 \times 4 = 24, \quad 8 \times 5 = 40$$

Final Answer

40

MCQ 26

Find the missing entry if each row follows the same rule:

(2, 7
to 14; 3, 9
to ?
).

- A. 33 B. 21
C. 12 D. 27

Solution

$$2 \times 7 = 14, \quad 3 \times 9 = 27$$

Final Answer

27

MCQ 27

Find the missing entry if each row follows the same rule:

(3, 8
to 24; 4, 9
to ?
).

- A. 30 B. 13
C. 36 D. 42

Solution

$$3 \times 8 = 24, \quad 4 \times 9 = 36$$

Final Answer

36

MCQ 28

Find the missing entry if each row follows the same rule:

(5, 6
to 30; 7, 8
to ?
).

- A. 15 B. 56
C. 62 D. 50

Solution

$$5 \times 6 = 30, \quad 7 \times 8 = 56$$

Final Answer

56

MCQ 29

Find the missing entry if each row follows the same rule:

(4, 7
to 28; 6, 9
to ?
).

- A. 54 B. 60
C. 48 D. 15

Solution

$$4 \times 7 = 28, \quad 6 \times 9 = 54$$

Final Answer

54

MCQ 30

Find the missing entry if each row follows the same rule:

(8, 3
to 24; 9, 4
to ?
).

- A. 42 B. 30
C. 13 D. 36

Solution

$$8 \times 3 = 24, \quad 9 \times 4 = 36$$

Final Answer

36

MCQ 31

Find the missing number: $2 + 3 = 5$; therefore $4 + 7 = ?$.

- A. 9 B. 28
C. 11 D. 13

Solution

$$4 + 7 = 11$$

Final Answer

11

MCQ 32

Find the missing number: $5 + 6 = 11$; therefore $8 + 9 = ?$.

- A. 72 B. 17
C. 19 D. 15

Solution

$$8 + 9 = 17$$

Final Answer

17

MCQ 33

Find the missing number: $10 + 3 = 7$; therefore $15 + 4 = ?$.

- A. 11 B. 13
C. 9 D. 60

Solution

$$15 + 4 = 11$$

Final Answer

11

MCQ 34

Find the missing number: $9 + 2 = 7$; therefore $14 + 5 = ?$.

- A. 11 B. 7
C. 70 D. 9

Solution

$$14 + 5 = 9$$

Final Answer

9

MCQ 35

Find the missing number: $6 + 6 = 12$; therefore $7 + 8 = ?$.

- A. 13 B. 56
C. 15 D. 17

Solution

$$7 + 8 = 15$$

Final Answer

15

MCQ 36

Find the missing number: $4 + 9 = 13$; therefore $6 + 11 = ?$.

- A. 66 B. 17
C. 19 D. 15

Solution

$$6 + 11 = 17$$

Final Answer

17

MCQ 37

Find the missing number: $12 + 5 = 17$; therefore $20 + 3 = ?$.

- A. 23 B. 25
C. 21 D. 60

Solution

$$20 + 3 = 23$$

Final Answer

23

MCQ 38

Find the missing number: $8 + 7 = 15$; therefore $9 + 10 = ?$.

- A. 21 B. 17
C. 90 D. 19

Solution

$$9 + 10 = 19$$

Final Answer

19

MCQ 39

Find the missing number: $3 + 4 = 7$; therefore $5 + 9 = ?$.

- A. 12 B. 45
C. 14 D. 16

Solution

$$5 + 9 = 14$$

Final Answer

14

MCQ 40

Find the missing number: $11 + 8 = 19$; therefore $13 + 7 = ?$.

- A. 91 B. 20
C. 22 D. 18

Solution

$$13 + 7 = 20$$

Final Answer

20

Comparisons and Ranking**MCQ 41**

Choose the correct symbol: $0.75 _ 0.7$.

- A. $>$ B. $<$
C. $=$ D. Cannot say

Solution

$$0.75 > 0.7$$

Final Answer $>$

MCQ 42Choose the correct symbol: 0.6666666667 _ 0.66 .

- A. < B. =
C. Cannot say D. >

Solution

$$0.6666666667 > 0.66$$

Final Answer

>

MCQ 43Choose the correct symbol: 0.625 _ 0.6 .

- A. = B. Cannot say
C. > D. <

Solution

$$0.625 > 0.6$$

Final Answer

>

MCQ 44Choose the correct symbol: 0.7 _ 0.75 .

- A. Cannot say B. <
C. > D. =

Solution

$$0.7 < 0.75$$

Final Answer

<

MCQ 45Choose the correct symbol: 0.8 _ 0.79 .

- A. > B. <
C. = D. Cannot say

Solution

$$0.8 > 0.79$$

Final Answer

>

MCQ 46Choose the correct symbol: 0.45 _ 0.45 .

- A. > B. <
C. Cannot say D. =

Solution

$$0.45 = 0.45$$

Final Answer

=

MCQ 47Choose the correct symbol: 0.8333333333 _ 0.8 .

- A. = B. Cannot say
C. > D. <

Solution

$$0.8333333333 > 0.8$$

Final Answer

>

MCQ 48Choose the correct symbol: 0.6 _ 0.62 .

- A. Cannot say B. <
C. > D. =

Solution

$$0.6 < 0.62$$

Final Answer

<

MCQ 49Choose the correct symbol: 0.9 _ 0.89 .

- A. > B. <
C. = D. Cannot say

Solution

$$0.9 > 0.89$$

Final Answer

>

MCQ 50Choose the correct symbol: 0.875 _ 0.87 .

- A. < B. =
C. Cannot say D. >

Solution

$$0.875 > 0.87$$

Final Answer

>

MCQ 51

A person is 7th from the left and 12th from the right in a row. How many persons are there?

- A. 17 B. 20
C. 18 D. 19

Solution

$$N = 7 + 12 - 1 = 18$$

Final Answer

18

MCQ 52

A person is 5th from the left and 18th from the right in a row. How many persons are there?

- A. 24 B. 22
C. 23 D. 21

Solution

$$N = 5 + 18 - 1 = 22$$

Final Answer

22

MCQ 53

A person is 9th from the left and 10th from the right in a row. How many persons are there?

- A. 18 B. 19
C. 17 D. 20

Solution

$$N = 9 + 10 - 1 = 18$$

Final Answer

18

MCQ 54

A person is 11th from the left and 15th from the right in a row. How many persons are there?

- A. 26 B. 24
C. 27 D. 25

Solution

$$N = 11 + 15 - 1 = 25$$

Final Answer

25

MCQ 55

A person is 4th from the left and 20th from the right in a row. How many persons are there?

- A. 22 B. 25
C. 23 D. 24

Solution

$$N = 4 + 20 - 1 = 23$$

Final Answer

23

MCQ 56

A person is 13th from the left and 9th from the right in a row. How many persons are there?

- A. 23 B. 21
C. 22 D. 20

Solution

$$N = 13 + 9 - 1 = 21$$

Final Answer

21

MCQ 57

A person is 6th from the left and 14th from the right in a row. How many persons are there?

- A. 19 B. 20
C. 18 D. 21

Solution

$$N = 6 + 14 - 1 = 19$$

Final Answer

19

MCQ 58

A person is 8th from the left and 17th from the right in a row. How many persons are there?

- A. 25 B. 23
C. 26 D. 24

Solution

$$N = 8 + 17 - 1 = 24$$

Final Answer

24

MCQ 59

A person is 10th from the left and 11th from the right in a row. How many persons are there?

- A. 19 B. 22
C. 20 D. 21

Solution

$$N = 10 + 11 - 1 = 20$$

Final Answer

20

MCQ 60

A person is 12th from the left and 8th from the right in a row. How many persons are there?

- A. 21 B. 19
C. 20 D. 18

Solution

$$N = 12 + 8 - 1 = 19$$

Final Answer

19

Clocks and Calendars**MCQ 61**

Find the smaller angle between the hands of a clock at 3:00.

- A. 90° B. 60°
C. 120° D. 150°

Solution

$$\theta = 30^\circ \times 3 = 90^\circ$$

Final Answer 90° **MCQ 62**

Find the smaller angle between the hands of a clock at 6:00.

- A. 150° B. 0°
C. 210° D. 180°

Solution

$$\theta = 30^\circ \times 6 = 180^\circ$$

Final Answer 180° **MCQ 63**

Find the smaller angle between the hands of a clock at 9:00.

- A. 120° B. 150°
C. 90° D. 60°

Solution

$$\theta = 30^\circ \times 3 = 90^\circ$$

Final Answer 90° **MCQ 64**

Find the smaller angle between the hands of a clock at 12:00.

- A. -30° B. 0°
C. 30° D. 180°

Solution

$$\theta = 30^\circ \times 0 = 0^\circ$$

Final Answer 0° **MCQ 65**

Find the smaller angle between the hands of a clock at 2:00.

- A. 60° B. 30°
C. 90° D. 120°

Solution

$$\theta = 30^\circ \times 2 = 60^\circ$$

Final Answer 60° **MCQ 66**

Find the smaller angle between the hands of a clock at 4:00.

- A. 90° B. 150°
C. 60° D. 120°

Solution

$$\theta = 30^\circ \times 4 = 120^\circ$$

Final Answer 120° **MCQ 67**

Find the smaller angle between the hands of a clock at 5:00.

- A. 180° B. 30°
C. 150° D. 120°

Solution

$$\theta = 30^\circ \times 5 = 150^\circ$$

Final Answer 150°

MCQ 68

Find the smaller angle between the hands of a clock at 1:00.

- A. 150° B. 30°
C. 0° D. 60°

Solution

$$\theta = 30^\circ \times 1 = 30^\circ$$

Final Answer **30°** **MCQ 69**

Find the smaller angle between the hands of a clock at 10:00.

- A. 60° B. 30°
C. 90° D. 120°

Solution

$$\theta = 30^\circ \times 2 = 60^\circ$$

Final Answer **60°** **MCQ 70**

Find the smaller angle between the hands of a clock at 11:00.

- A. 0° B. 60°
C. 150° D. 30°

Solution

$$\theta = 30^\circ \times 1 = 30^\circ$$

Final Answer **30°** **MCQ 71**

If today is Monday, what day will it be after 10 days?

- A. Saturday B. Sunday
C. Thursday D. Friday

Solution

$$10 \equiv 3 \pmod{7}$$

Final Answer**Thursday****MCQ 72**

If today is Tuesday, what day will it be after 15 days?

- A. Saturday B. Wednesday
C. Thursday D. Friday

Solution

$$15 \equiv 1 \pmod{7}$$

Final Answer**Wednesday****MCQ 73**

If today is Wednesday, what day will it be after 20 days?

- A. Tuesday B. Wednesday
C. Thursday D. Friday

Solution

$$20 \equiv 6 \pmod{7}$$

Final Answer**Tuesday****MCQ 74**

If today is Thursday, what day will it be after 30 days?

- A. Sunday B. Monday
C. Tuesday D. Saturday

Solution

$$30 \equiv 2 \pmod{7}$$

Final Answer**Saturday****MCQ 75**

If today is Friday, what day will it be after 9 days?

- A. Tuesday B. Wednesday
C. Sunday D. Monday

Solution

$$9 \equiv 2 \pmod{7}$$

Final Answer**Sunday**

MCQ 76

If today is Saturday, what day will it be after 16 days?

- A. Thursday B. Monday
C. Tuesday D. Wednesday

Solution

$$16 \equiv 2 \pmod{7}$$

Final Answer

Monday

MCQ 77

If today is Sunday, what day will it be after 22 days?

- A. Monday B. Tuesday
C. Wednesday D. Thursday

Solution

$$22 \equiv 1 \pmod{7}$$

Final Answer

Monday

MCQ 78

If today is Monday, what day will it be after 100 days?

- A. Thursday B. Friday
C. Saturday D. Wednesday

Solution

$$100 \equiv 2 \pmod{7}$$

Final Answer

Wednesday

MCQ 79

If today is Wednesday, what day will it be after 50 days?

- A. Saturday B. Sunday
C. Thursday D. Friday

Solution

$$50 \equiv 1 \pmod{7}$$

Final Answer

Thursday

MCQ 80

If today is Friday, what day will it be after 365 days?

- A. Tuesday B. Saturday
C. Sunday D. Monday

Solution

$$365 \equiv 1 \pmod{7}$$

Final Answer

Saturday

Directions and Analytical Order**MCQ 81**

A person moves 3 km east and then 4 km north. How far is the person from the starting point?

- A. 5 B. 7
C. 1 D. 6

Solution

$$d = \sqrt{3^2 + 4^2} = 5$$

Final Answer

5

MCQ 82

A person moves 5 km east and then 12 km north. How far is the person from the starting point?

- A. 17 B. 7
C. 14 D. 13

Solution

$$d = \sqrt{5^2 + 12^2} = 13$$

Final Answer

13

MCQ 83

A person moves 8 km east and then 6 km north. How far is the person from the starting point?

- A. 2 B. 11
C. 10 D. 14

Solution

$$d = \sqrt{8^2 + 6^2} = 10$$

Final Answer

10

MCQ 84

A person moves 7 km east and then 24 km north.
How far is the person from the starting point?

- A. 26 B. 25
C. 31 D. 17

Solution

$$d = \sqrt{7^2 + 24^2} = 25$$

Final Answer

25

MCQ 85

A person moves 9 km east and then 12 km north.
How far is the person from the starting point?

- A. 15 B. 21
C. 3 D. 16

Solution

$$d = \sqrt{9^2 + 12^2} = 15$$

Final Answer

15

MCQ 86

A person moves 6 km east and then 8 km north.
How far is the person from the starting point?

- A. 14 B. 2
C. 11 D. 10

Solution

$$d = \sqrt{6^2 + 8^2} = 10$$

Final Answer

10

MCQ 87

A person moves 12 km east and then 5 km north.
How far is the person from the starting point?

- A. 7 B. 14
C. 13 D. 17

Solution

$$d = \sqrt{12^2 + 5^2} = 13$$

Final Answer

13

MCQ 88

A person moves 15 km east and then 8 km north.
How far is the person from the starting point?

- A. 18 B. 17
C. 23 D. 7

Solution

$$d = \sqrt{15^2 + 8^2} = 17$$

Final Answer

17

MCQ 89

A person moves 20 km east and then 21 km north.
How far is the person from the starting point?

- A. 29 B. 41
C. 1 D. 30

Solution

$$d = \sqrt{20^2 + 21^2} = 29$$

Final Answer

29

MCQ 90

A person moves 9 km east and then 40 km north.
How far is the person from the starting point?

- A. 49 B. 31
C. 42 D. 41

Solution

$$d = \sqrt{9^2 + 40^2} = 41$$

Final Answer

41

MCQ 91

Given $A > B, B > C$, is $A > C$ true?

- A. Both B. Cannot say
C. True D. False

Solution

$$A > B, B > C \Rightarrow A > C$$

Final Answer

True

MCQ 92

Given $P < Q, Q < R$, is $P < R$ true?

- A. Cannot say B. True
C. False D. Both

Solution

$$P < Q, Q < R \Rightarrow P < R$$

Final Answer

True

MCQ 93Given $X = Y, Y > Z$, is $X > Z$ true?

- A. True B. False
C. Both D. Cannot say

Solution

$$X = Y, Y > Z \Rightarrow X > Z$$

Final Answer

True

MCQ 94Given $M < N, N = K$, is $M < K$ true?

- A. False B. Both
C. Cannot say D. True

Solution

$$M < N, N = K \Rightarrow M < K$$

Final Answer

True

MCQ 95Given $a > b, b = c$, is $a > c$ true?

- A. Both B. Cannot say
C. True D. False

Solution

$$a > b, b = c \Rightarrow a > c$$

Final Answer

True

MCQ 96Given $r < s, s < t$, is $t < r$ true?

- A. Cannot say B. False
C. True D. Both

Solution
 $r < s, s < t \Rightarrow$ the claim does not follow
Final Answer

False

MCQ 97Given $u = v, v = w$, is $u = w$ true?

- A. True B. False
C. Both D. Cannot say

Solution

$$u = v, v = w \Rightarrow u = w$$

Final Answer

True

MCQ 98Given $p > q, q > r$, is $r > p$ true?

- A. True B. Both
C. Cannot say D. False

Solution
 $p > q, q > r \Rightarrow$ the claim does not follow
Final Answer

False

MCQ 99Given $x < y, y = z$, is $x < z$ true?

- A. Both B. Cannot say
C. True D. False

Solution

$$x < y, y = z \Rightarrow x < z$$

Final Answer

True

MCQ 100Given $A < B, B < C$, is $C > A$ true?

- A. Cannot say B. True
C. False D. Both

Solution

$$A < B, B < C \Rightarrow C > A$$

Final Answer

True

RAPID REVISION GRID | LOGICAL / ANALYTICAL

Matrix questions Test simple row/column operations first: $+$, $-$, $\times$, $\div$.

Ranking shortcut

Total = left rank + right rank $-$ 1

Calendar shortcut Remove complete weeks before counting.

Direction shortcut Use coordinates: East ($+x$), North ($+y$).

Comparison Convert fractions/percentages to a common form.

Exam method Prefer the smallest consistent rule that fits all given numbers.

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