ScholarEye.xyz

BASIC MATHEMATICS

50 Solved MCQs

✓ Ticked ✓ Highlighted ✓ Answered

Complete Practice Book with Solutions

Arithmetic • Algebra • Geometry

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How to Use This Book

This book has **50 solved MCQs** on basic mathematics. Try each question first, then check the answer and the solution.

Look for these marks:

✓ **Green box** = the correct option

Yellow strip = the final answer

Solution = short working to understand the answer

Topics Covered

Arithmetic, factors and multiples, fractions, decimals, percentages, integers, powers and roots, algebra, ratio, average, speed, geometry, area, perimeter, volume, angles, patterns and interest.

Study Tip

Cover the options, solve it on paper, then compare with the green answer. Aim for 40 or more correct!

Q1 Addition

What is 125 + 378?

- A) 493
- **B) 503** ✓
- C) 513
- D) 403

✓ **Answer: B) 503**

Solution: 125 + 378 = 503.

Q2 Subtraction

What is 1000 − 457?

- **A) 543** ✓
- B) 553
- C) 647
- D) 533

✓ **Answer: A) 543**

Solution: 1000 − 457 = 543.

Q3 Multiplication

What is 24 × 15?

- A) 340
- B) 350
- C) 380
- D) 360 ✓

✓ **Answer: D) 360**

Solution: 24 × 10 = 240 and 24 × 5 = 120, so 240 + 120 = 360.

Q4 Division

What is 576 ÷ 8?

- A) 62
- B) 82
- C) 72 ✓
- D) 74

✓ **Answer: C) 72**

Solution: 8 × 72 = 576, so 576 ÷ 8 = 72.

Q5 Prime Numbers

Which of these is a prime number?

- A) 51
- B) 59 ✓
- C) 57
- D) 63

✓ **Answer: B) 59**

Solution: $51 = 3 \times 17$, $57 = 3 \times 19$, $63 = 7 \times 9$. Only 59 has no other factors.

Q6 LCM

What is the LCM of 6 and 8?

- A) 24 ✓
- B) 12
- C) 48
- D) 36

✓ **Answer: A) 24**

Solution: Multiples of 8: 8, 16, 24. 24 is the first multiple of 6 also, so LCM = 24.

Q7 HCF

What is the HCF of 36 and 48?

A 6
B 18
C 24
D **12** ✓

✓ **Answer: D) 12**

Solution: 36 = 12 × 3 and 48 = 12 × 4. The greatest common factor is 12.

Q8 Fractions

What is 2/5 + 3/10?

A 5/15
B 5/10
C **7/10** ✓
D 1/2

✓ **Answer: C) 7/10**

Solution: 2/5 = 4/10, so 4/10 + 3/10 = 7/10.

Q9 Fractions

What is 3/4 of 80?

A) 40
B) 60 ✓
C) 50
D) 70

✓ **Answer: B) 60**

Solution: 80 ÷ 4 = 20, then 20 × 3 = 60.

Q10 Fractions

What is 1/2 × 2/3?

A) 1/3 ✓
B) 1/6
C) 2/5
D) 3/5

✓ **Answer: A) 1/3**

Solution: (1 × 2) ÷ (2 × 3) = 2/6 = 1/3.

Q11 Percentage

What is 25% of 200?

- A) 25
- B) 40
- C) 75
- D) 50 ✓

✓ **Answer: D) 50**

Solution: 25% = 1/4, and 200 ÷ 4 = 50.

Q12 Percentage

Write 0.5 as a percentage.

- A) 5%
- B) 0.5%
- C) 50% ✓
- D) 500%

✓ **Answer: C) 50%**

Solution: 0.5 × 100 = 50%.

Q13 Percentage

What is 15% of 60?

A) 6

B) 9 ✓

C) 12

D) 15

✓ **Answer: B) 9**

Solution: 10% of 60 = 6 and 5% = 3, so 6 + 3 = 9.

Q14 Discount

A shirt costs Rs 800 and has a 10% discount. What is the sale price?

A) Rs 720 ✓

B) Rs 700

C) Rs 780

D) Rs 640

✓ **Answer: A) Rs 720**

Solution: Discount = 10% of 800 = 80. Sale price = 800 − 80 = 720.

Q15 Decimals

What is 0.6 + 0.25?

A 0.31

B 0.75

C 0.65

D **0.85** ✓

✓ **Answer: D) 0.85**

Solution: 0.60 + 0.25 = 0.85.

Q16 Decimals

What is 5.5 × 4?

A 20

B 24

C **22** ✓

D 21.5

✓ **Answer: C) 22**

Solution: 5 × 4 = 20 and 0.5 × 4 = 2, so 20 + 2 = 22.

Q17 Square Root

What is √144?

A) 14

B) 12 ✓

C) 11

D) 13

✓ **Answer: B) 12**

Solution: 12 × 12 = 144, so √144 = 12.

Q18 Squares

What is 13^2?

A) 169 ✓

B) 139

C) 196

D) 156

✓ **Answer: A) 169**

Solution: 13 × 13 = 169.

Q19 Exponents

What is $2^3 \times 2^2$?

A) 16
B) 10
C) 64
D) **32** ✓

✓ **Answer: D) 32**

Solution: Add the powers: $2^3 \times 2^2 = 2^5 = 32$.

Q20 Integers

What is (−5) + (−7)?

A) 12
B) −2
C) **−12** ✓
D) 2

✓ **Answer: C) −12**

Solution: Adding two negatives: 5 + 7 = 12, so the answer is −12.

Q21 Integers

What is (−8) × (−3)?

A) −24

B) 24 ✓

C) 11

D) −11

✓ **Answer: B) 24**

Solution: Negative × negative = positive, so 8 × 3 = 24.

Q22 Integers

What is 7 − (−4)?

A) 11 ✓

B) 3

C) −11

D) −3

✓ **Answer: A) 11**

Solution: Subtracting a negative means adding: 7 + 4 = 11.

Q23 BODMAS

Simplify: 10 + 2 × 5

A 60

B 30

C 70

D **20** ✓

✓ **Answer: D) 20**

Solution: By BODMAS, multiply first: 2 × 5 = 10, then 10 + 10 = 20.

Q24 Algebra

Solve: x + 9 = 15

A x = 24

B x = 5

C **x = 6** ✓

D x = 7

✓ **Answer: C) x = 6**

Solution: x = 15 − 9 = 6.

Q25 Algebra

Solve: 3x = 27

- A) x = 24
- **B) x = 9** ✓
- C) x = 81
- D) x = 8

✓ **Answer: B) x = 9**

Solution: Divide both sides by 3: x = 27 ÷ 3 = 9.

Q26 Algebra

Solve: 2x − 5 = 11

- **A) x = 8** ✓
- B) x = 3
- C) x = 6
- D) x = 16

✓ **Answer: A) x = 8**

Solution: 2x = 11 + 5 = 16, so x = 16 ÷ 2 = 8.

Q27 Algebra

Solve: x ÷ 4 = 7

A) x = 11

B) x = 3

C) x = 24

D) **x = 28** ✓

✓ **Answer: D) x = 28**

Solution: Multiply both sides by 4: x = 7 × 4 = 28.

Q28 Substitution

If a = 3 and b = 2, find 2a + 3b.

A) 10

B) 13

C) **12** ✓

D) 15

✓ **Answer: C) 12**

Solution: 2(3) + 3(2) = 6 + 6 = 12.

Q29 Algebra

Simplify: 5x + 3x

A) 15x

B) 8x ✓

C) $8x^2$

D) 2x

✓ **Answer: B) 8x**

Solution: Add like terms: 5x + 3x = 8x.

Q30 Algebra

Expand: 3(x + 4)

A) 3x + 12 ✓

B) 3x + 4

C) x + 12

D) 3x + 7

✓ **Answer: A) 3x + 12**

Solution: Multiply both terms by 3: 3x + 12.

Q31 Ratio

Write the ratio 12 : 18 in simplest form.

A) 3 : 2

B) 6 : 9

C) 4 : 5

D) 2 : 3 ✓

✓ **Answer: D) 2 : 3**

Solution: Divide both by 6: 12 ÷ 6 = 2 and 18 ÷ 6 = 3.

Q32 Ratio

Divide 60 in the ratio 2 : 3. What are the two parts?

A) 20 and 40

B) 30 and 30

C) 24 and 36 ✓

D) 25 and 35

✓ **Answer: C) 24 and 36**

Solution: Total parts = 5. One part = 60 ÷ 5 = 12. So 2 × 12 = 24 and 3 × 12 = 36.

Q33 Average

What is the average of 10, 20, 30, 40 and 50?

- A) 25
- **B) 30** ✓
- C) 35
- D) 150

✓ **Answer: B) 30**

Solution: Sum = 150 and 150 ÷ 5 = 30.

Q34 Speed

A car travels 60 km in 2 hours. What is its speed?

- **A) 30 km/h** ✓
- B) 120 km/h
- C) 20 km/h
- D) 60 km/h

✓ **Answer: A) 30 km/h**

Solution: Speed = distance ÷ time = 60 ÷ 2 = 30 km/h.

Q35 Geometry

What is the sum of the angles of a triangle?

A) 90°
B) 360°
C) 270°
D) **180°** ✓

✓ **Answer: D) 180°**

Solution: The three angles of every triangle always add up to 180°.

Q36 Geometry

How many degrees are there in a right angle?

A) 45°
B) 180°
C) **90°** ✓
D) 60°

✓ **Answer: C) 90°**

Solution: A right angle is a quarter turn, which is 90°.

Q37 Area

Find the area of a rectangle 8 cm long and 5 cm wide.

- A) 13 cm²
- **B) 40 cm²** ✓
- C) 26 cm²
- D) 80 cm²

✓ **Answer: B) 40 cm²**

Solution: Area = length × width = 8 × 5 = 40 cm².

Q38 Perimeter

Find the perimeter of a square with side 7 cm.

- **A) 28 cm** ✓
- B) 14 cm
- C) 49 cm
- D) 21 cm

✓ **Answer: A) 28 cm**

Solution: Perimeter = 4 × side = 4 × 7 = 28 cm.

Q39 Area

Find the area of a square with side 9 cm.

- A) 36 cm²
- B) 18 cm²
- C) 72 cm²
- **D) 81 cm² ✓**

✓ **Answer: D) 81 cm²**

Solution: Area = side × side = 9 × 9 = 81 cm².

Q40 Area

Find the area of a triangle with base 10 cm and height 6 cm.

- A) 60 cm²
- B) 16 cm²
- **C) 30 cm² ✓**
- D) 36 cm²

✓ **Answer: C) 30 cm²**

Solution: Area = ½ × base × height = ½ × 10 × 6 = 30 cm².

Q41 Circle

Circumference of a circle with radius 7 cm? (π = 22/7)

A) 22 cm

B) **44 cm** ✓

C) 154 cm

D) 14 cm

✓ **Answer: B) 44 cm**

Solution: C = 2πr = 2 × 22/7 × 7 = 44 cm.

Q42 Circle

Area of a circle with radius 7 cm? (π = 22/7)

A) **154 cm²** ✓

B) 44 cm²

C) 49 cm²

D) 308 cm²

✓ **Answer: A) 154 cm²**

Solution: A = πr² = 22/7 × 7 × 7 = 154 cm².

Q43 Angles

What is the complement of 35°?

A 145°

B 65°

C 45°

D **55°** ✓

✓ **Answer: D) 55°**

Solution: Complementary angles add to 90°: 90° − 35° = 55°.

Q44 Angles

What is the supplement of 110°?

A 80°

B 250°

C **70°** ✓

D 20°

✓ **Answer: C) 70°**

Solution: Supplementary angles add to 180°: 180° − 110° = 70°.

Q45 Polygons

How many sides does a hexagon have?

- A) 5
- **B) 6** ✓
- C) 7
- D) 8

✓ **Answer: B) 6**

Solution: Hexa means six, so a hexagon has 6 sides.

Q46 Volume

Find the volume of a cube with side 4 cm.

- **A) 64 cm³** ✓
- B) 16 cm³
- C) 48 cm³
- D) 12 cm³

✓ **Answer: A) 64 cm³**

Solution: Volume = side³ = 4 × 4 × 4 = 64 cm³.

Q47 Patterns

Find the next number: 2, 4, 8, 16, ?

A 24

B 30

C 20

D **32** ✓

✓ **Answer: D) 32**

Solution: Each number is doubled: 16 × 2 = 32.

Q48 Median

Find the median of 3, 7, 5, 9, 1.

A 7

B 3

C **5** ✓

D 9

✓ **Answer: C) 5**

Solution: Order: 1, 3, 5, 7, 9. The middle value is 5.

Q49 Interest

Find the simple interest on Rs 1000 at 5% per year for 2 years.

- A) Rs 50
- B) **Rs 100** ✓
- C) Rs 150
- D) Rs 10

✓ **Answer: B) Rs 100**

Solution: SI = (P × R × T) ÷ 100 = (1000 × 5 × 2) ÷ 100 = 100.

Q50 Place Value

What is the place value of 5 in 4,538?

- A) **500** ✓
- B) 5
- C) 50
- D) 5000

✓ **Answer: A) 500**

Solution: 5 is in the hundreds place, so its value is 5 × 100 = 500.

Quick Answer Key

1. B	**11.** D	**21.** B	**31.** D	**41.** B
2. A	**12.** C	**22.** A	**32.** C	**42.** A
3. D	**13.** B	**23.** D	**33.** B	**43.** D
4. C	**14.** A	**24.** C	**34.** A	**44.** C
5. B	**15.** D	**25.** B	**35.** D	**45.** B
6. A	**16.** C	**26.** A	**36.** C	**46.** A
7. D	**17.** B	**27.** D	**37.** B	**47.** D
8. C	**18.** A	**28.** C	**38.** A	**48.** C
9. B	**19.** D	**29.** B	**39.** D	**49.** B
10. A	**20.** C	**30.** A	**40.** C	**50.** A



Thank You!

You have completed all 50 MCQs.
Revise the solutions you missed
and practise a little every day.
Consistency makes maths easy!

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