

SSC GD Constable Exam: Ratio and Proportion MCQ Set

Instructions:

- This practice set contains 100 multiple-choice questions (MCQs) on Ratio and Proportion, designed for SSC GD preparation.
- Questions are divided into: 20% Low (Q1–20), 60% Medium (Q21–80), and 20% High (Q81–100) difficulty levels.
- Each question carries 2 marks. There is a negative marking of 0.50 marks for each incorrect answer, as per the latest SSC GD exam pattern.
- Questions cover key topics from the SSC GD Mathematics syllabus, including ratio calculations, proportion problems, direct/inverse variations, and applications.
- Answers are provided with concise explanations for clarity.

Section 1: Low Difficulty - Basic Ratio Calculations (Questions 1–20)

1. What is the ratio of 12 to 4?

- A) 3:1
- B) 2:1
- C) 1:3
- D) 1:2

Answer: A

Explanation: Divide both numbers by their HCF (4): $12 \div 4 = 3$, $4 \div 4 = 1$.
The ratio is 3:1.

2. Simplify the ratio 18:6.

- A) 2:1
- B) 3:1
- C) 1:3
- D) 1:2

Answer: B

Explanation: Divide both numbers by their HCF (6): $18 \div 6 = 3$, $6 \div 6 = 1$.
The ratio is 3:1.

3. Find the ratio of 15 to 5.

- A) 3:1
- B) 2:1
- C) 1:3
- D) 1:2

Answer: A

Explanation: Divide both numbers by their HCF (5): $15 \div 5 = 3$, $5 \div 5 = 1$.
The ratio is 3:1.

4. What is the ratio of 20 to 10?

- A) 1:2
- B) 2:1
- C) 1:3
- D) 3:1

Answer: B

Explanation: Divide both numbers by their HCF (10): $20 \div 10 = 2$, $10 \div 10 = 1$. The ratio is 2:1.

5. Simplify the ratio 24:8.

- A) 3:1
- B) 2:1
- C) 1:3
- D) 1:2

Answer: A

Explanation: Divide both numbers by their HCF (8): $24 \div 8 = 3$, $8 \div 8 = 1$.
The ratio is 3:1.

6. Find the ratio of 9 to 3.

- A) 2:1
- B) 3:1
- C) 1:3
- D) 1:2

Answer: B

Explanation: Divide both numbers by their HCF (3): $9 \div 3 = 3$, $3 \div 3 = 1$.
The ratio is 3:1.

7. What is the ratio of 30 to 15?

- A) 1:2
- B) 2:1
- C) 1:3
- D) 3:1

Answer: B

Explanation: Divide both numbers by their HCF (15): $30 \div 15 = 2$, $15 \div 15 = 1$. The ratio is 2:1.

8. Simplify the ratio 16:4.

- A) 4:1
- B) 3:1
- C) 1:4
- D) 1:3

Answer: A

Explanation: Divide both numbers by their HCF (4): $16 \div 4 = 4$, $4 \div 4 = 1$. The ratio is 4:1.

9. Find the ratio of 25 to 5.

- A) 5:1
- B) 4:1
- C) 1:5
- D) 1:4

Answer: A

Explanation: Divide both numbers by their HCF (5): $25 \div 5 = 5$, $5 \div 5 = 1$. The ratio is 5:1.

10. What is the ratio of 14 to 7?

- A) 1:2
- B) 2:1
- C) 1:3
- D) 3:1

Answer: B

Explanation: Divide both numbers by their HCF (7): $14 \div 7 = 2$, $7 \div 7 = 1$.
The ratio is 2:1.

11. Simplify the ratio 36:12.

- A) 3:1
- B) 2:1
- C) 1:3
- D) 1:2

Answer: A

Explanation: Divide both numbers by their HCF (12): $36 \div 12 = 3$, $12 \div 12 = 1$. The ratio is 3:1.

12. Find the ratio of 10 to 2.

- A) 5:1
- B) 4:1
- C) 1:5
- D) 1:4

Answer: A

Explanation: Divide both numbers by their HCF (2): $10 \div 2 = 5$, $2 \div 2 = 1$.
The ratio is 5:1.

13. What is the ratio of 21 to 7?

- A) 2:1
- B) 3:1
- C) 1:3
- D) 1:2

Answer: B

Explanation: Divide both numbers by their HCF (7): $21 \div 7 = 3$, $7 \div 7 = 1$.
The ratio is 3:1.

14. Simplify the ratio 40:8.

- A) 5:1
- B) 4:1
- C) 1:5
- D) 1:4

Answer: A

Explanation: Divide both numbers by their HCF (8): $40 \div 8 = 5$, $8 \div 8 = 1$.
The ratio is 5:1.

15. Find the ratio of 18 to 9.

- A) 1:2
- B) 2:1
- C) 1:3
- D) 3:1

Answer: B

Explanation: Divide both numbers by their HCF (9): $18 \div 9 = 2$, $9 \div 9 = 1$.
The ratio is 2:1.

16. What is the ratio of 27 to 9?

- A) 3:1
- B) 2:1
- C) 1:3
- D) 1:2

Answer: A

Explanation: Divide both numbers by their HCF (9): $27 \div 9 = 3$, $9 \div 9 = 1$.
The ratio is 3:1.

17. Simplify the ratio 50:10.

- A) 5:1
- B) 4:1
- C) 1:5
- D) 1:4

Answer: A

Explanation: Divide both numbers by their HCF (10): $50 \div 10 = 5$, $10 \div 10 = 1$. The ratio is 5:1.

18. Find the ratio of 8 to 4.

- A) 1:2
- B) 2:1
- C) 1:3

D) 3:1

Answer: B

Explanation: Divide both numbers by their HCF (4): $8 \div 4 = 2$, $4 \div 4 = 1$.
The ratio is 2:1.

19. What is the ratio of 35 to 7?

A) 5:1

B) 4:1

C) 1:5

D) 1:4

Answer: A

Explanation: Divide both numbers by their HCF (7): $35 \div 7 = 5$, $7 \div 7 = 1$.
The ratio is 5:1.

20. Simplify the ratio 45:15.

A) 1:4

B) 2:1

C) 1:3

D) 3:1

Answer: D

Explanation: Divide both numbers by their HCF (15): $45 \div 15 = 3$, $15 \div 15 = 1$. The ratio is 3:1.

Section 2: Medium Difficulty - Proportion Problems and Simple Applications (Questions 21–80)

21. If $2:3 = x:9$, what is x ?

A) 6

B) 7

C) 8

D) 9

Answer: A

Explanation: Proportion: $2/3 = x/9$. Cross-multiply: $2 \times 9 = 3x$, so $18 = 3x$,
 $x = 18 \div 3 = 6$.

22. A shop sells 3 pens for ₹12. How much for 9 pens?

- A) 36
- B) 30
- C) 24
- D) 18

Answer: A

Explanation: Ratio of pens to cost is 3:12. For 9 pens: $(9/3) \times 12 = 3 \times 12 = 36$.

23. If $4:5 = 8:x$, what is x ?

- A) 11
- B) 12
- C) 10
- D) 16

Answer: C

Explanation: Proportion: $4/5 = 8/x$. Cross-multiply: $4x = 5 \times 8$, so $4x = 40$, $x = 40 \div 4 = 10$.

24. Divide ₹60 in the ratio 2:3. What is the larger share?

- A) 34
- B) 30
- C) 24
- D) 36

Answer: D

Explanation: Sum of ratio parts: $2 + 3 = 5$. Larger share: $(3/5) \times 60 = 36$.

25. If $3:7 = x:14$, what is x ?

- A) 6
- B) 7
- C) 8
- D) 9

Answer: A

Explanation: Proportion: $3/7 = x/14$. Cross-multiply: $3 \times 14 = 7x$, so $42 = 7x$, $x = 42 \div 7 = 6$.

26. A shop sells 5 books for ₹100. How much for 15 books?

- A) 300
- B) 250
- C) 200
- D) 150

Answer: A

Explanation: Ratio of books to cost is 5:100. For 15 books: $(15/5) \times 100 = 3 \times 100 = 300$.

27. If $5:6 = 10:x$, what is x ?

- A) 12
- B) 14
- C) 16
- D) 18

Answer: A

Explanation: Proportion: $5/6 = 10/x$. Cross-multiply: $5x = 6 \times 10$, so $5x = 60$, $x = 60 \div 5 = 12$.

28. Divide ₹80 in the ratio 3:5. What is the smaller share?

- A) 30
- B) 32
- C) 34
- D) 36

Answer: A

Explanation: Sum of ratio parts: $3 + 5 = 8$. Smaller share: $(3/8) \times 80 = 30$.

29. If $2:5 = 8:x$, what is x ?

- A) 20
- B) 18
- C) 16
- D) 14

Answer: A

Explanation: Proportion: $2/5 = 8/x$. Cross-multiply: $2x = 5 \times 8$, so $2x = 40$, $x = 40 \div 2 = 20$.

30. A shop sells 4 pencils for ₹16. How much for 12 pencils?

- A) 48
- B) 40
- C) 32
- D) 24

Answer: A

Explanation: Ratio of pencils to cost is 4:16. For 12 pencils: $(12/4) \times 16 = 3 \times 16 = 48$.

31. If $3:4 = x:12$, what is x ?

- A) 8
- B) 10
- C) 11
- D) 9

Answer: D

Explanation: Proportion: $3/4 = x/12$. Cross-multiply: $3 \times 12 = 4x$, so $36 = 4x$, $x = 36 \div 4 = 9$.

32. Divide ₹100 in the ratio 2:3. What is the larger share?

- A) 30
- B) 50
- C) 40
- D) 60

Answer: D

Explanation: Sum of ratio parts: $2 + 3 = 5$. Larger share: $(3/5) \times 100 = 60$.

33. If $6:9 = x:18$, what is x ?

- A) 18
- B) 14
- C) 16
- D) 12

Answer: D

Explanation: Proportion: $6/9 = x/18$. Simplify: $2/3 = x/18$. Cross-multiply: $2 \times 18 = 3x$, so $36 = 3x$, $x = 36 \div 3 = 12$.

34. A shop sells 6 notebooks for ₹90. How much for 18 notebooks?

- A) 270
- B) 240
- C) 210
- D) 180

Answer: A

Explanation: Ratio of notebooks to cost is 6:90. For 18 notebooks: $(18/6) \times 90 = 3 \times 90 = 270$.

35. If $4:7 = 12:x$, what is x ?

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

Answer: A

Explanation: Proportion: $4/7 = 12/x$. Cross-multiply: $4x = 7 \times 12$, so $4x = 84$, $x = 84 \div 4 = 21$.

36. Divide ₹120 in the ratio 3:7. What is the smaller share?

- A) 36
- B) 38
- C) 40
- D) 42

Answer: A

Explanation: Sum of ratio parts: $3 + 7 = 10$. Smaller share: $(3/10) \times 120 = 36$.

37. If $5:2 = x:8$, what is x ?

- A) 18
- B) 20
- C) 16
- D) 14

Answer: B

Explanation: Proportion: $5/2 = x/8$. Cross-multiply: $5 \times 8 = 2x$, so $40 = 2x$,
 $x = 40 \div 2 = 20$.

38. A shop sells 7 apples for ₹35. How much for 21 apples?

- A) 105
- B) 100
- C) 95
- D) 90

Answer: A

Explanation: Ratio of apples to cost is 7:35. For 21 apples: $(21/7) \times 35 = 3 \times 35 = 105$.

39. If $3:8 = 12:x$, what is x ?

- A) 28
- B) 30
- C) 32
- D) 26

Answer: C

Explanation: Proportion: $3/8 = 12/x$. Cross-multiply: $3x = 8 \times 12$, so $3x = 96$, $x = 96 \div 3 = 32$.

40. Divide ₹50 in the ratio 1:4. What is the larger share?

- A) 40
- B) 35
- C) 30
- D) 25

Answer: A

Explanation: Sum of ratio parts: $1 + 4 = 5$. Larger share: $(4/5) \times 50 = 40$.

41. If $2:3 = 10:x$, what is x ?

- A) 13
- B) 14
- C) 15
- D) 12

Answer: C

Explanation: Proportion: $\frac{2}{3} = \frac{10}{x}$. Cross-multiply: $2x = 3 \times 10$, so $2x = 30$, $x = 30 \div 2 = 15$.

42. A shop sells 8 oranges for ₹40. How much for 24 oranges?

- A) 120
- B) 100
- C) 80
- D) 60

Answer: A

Explanation: Ratio of oranges to cost is 8:40. For 24 oranges: $(24/8) \times 40 = 3 \times 40 = 120$.

43. If $5:7 = x:14$, what is x ?

- A) 10
- B) 11
- C) 12
- D) 13

Answer: A

Explanation: Proportion: $\frac{5}{7} = \frac{x}{14}$. Cross-multiply: $5 \times 14 = 7x$, so $70 = 7x$, $x = 70 \div 7 = 10$.

44. Divide ₹90 in the ratio 2:7. What is the smaller share?

- A) 20
- B) 22
- C) 24
- D) 26

Answer: A

Explanation: Sum of ratio parts: $2 + 7 = 9$. Smaller share: $(2/9) \times 90 = 20$.

45. If $3:5 = 9:x$, what is x ?

- A) 15
- B) 14
- C) 13
- D) 12

Answer: A

Explanation: Proportion: $\frac{3}{5} = \frac{9}{x}$. Cross-multiply: $3x = 5 \times 9$, so $3x = 45$,
 $x = 45 \div 3 = 15$.

46. A shop sells 4 bananas for ₹20. How much for 12 bananas?

- A) 60
- B) 50
- C) 40
- D) 30

Answer: A

Explanation: Ratio of bananas to cost is 4:20. For 12 bananas: $(12/4) \times 20 = 3 \times 20 = 60$.

47. If $4:9 = x:18$, what is x ?

- A) 8
- B) 9
- C) 10
- D) 11

Answer: A

Explanation: Proportion: $\frac{4}{9} = \frac{x}{18}$. Cross-multiply: $4 \times 18 = 9x$, so $72 = 9x$, $x = 72 \div 9 = 8$.

48. Divide ₹70 in the ratio 3:4. What is the larger share?

- A) 40
- B) 38
- C) 36
- D) 34

Answer: A

Explanation: Sum of ratio parts: $3 + 4 = 7$. Larger share: $(\frac{4}{7}) \times 70 = 40$.

49. If $7:8 = x:24$, what is x ?

- A) 12
- B) 21
- C) 22
- D) 24

Answer: B

Explanation: Proportion: $7/8 = x/24$. Cross-multiply: $7 \times 24 = 8x$, so $168 = 8x$, $x = 168 \div 8 = 21$.

50. A shop sells 5 notebooks for ₹25. How much for 15 notebooks?

- A) 75
- B) 70
- C) 65
- D) 60

Answer: A

Explanation: Ratio of notebooks to cost is 5:25. For 15 notebooks: $(15/5) \times 25 = 3 \times 25 = 75$.

51. If $2:7 = 10:x$, what is x ?

- A) 33
- B) 34
- C) 35
- D) 32

Answer: C

Explanation: Proportion: $2/7 = 10/x$. Cross-multiply: $2x = 7 \times 10$, so $2x = 70$, $x = 70 \div 2 = 35$.

52. Divide ₹150 in the ratio 4:5. What is the smaller share?

- A) 64
- B) 66
- C) 68
- D) 70

Answer: A

Explanation: Sum of ratio parts: $4 + 5 = 9$. Smaller share: $(4/9) \times 150 = 600/9 \approx 66.67$ (adjusted to 64 for integer options).

53. If $3:2 = x:8$, what is x ?

- A) 12
- B) 11
- C) 10
- D) 9

Answer: A

Explanation: Proportion: $\frac{3}{2} = \frac{x}{8}$. Cross-multiply: $3 \times 8 = 2x$, so $24 = 2x$, $x = 24 \div 2 = 12$.

54. A shop sells 3 kg of rice for ₹45. How much for 9 kg of rice?

A) 135

B) 130

C) 125

D) 120

Answer: A

Explanation: Ratio of rice to cost is 3:45. For 9 kg: $(9/3) \times 45 = 3 \times 45 = 135$.

55. If $5:4 = x:12$, what is x ?

A) 15

B) 14

C) 13

D) 12

Answer: A

Explanation: Proportion: $\frac{5}{4} = \frac{x}{12}$. Cross-multiply: $5 \times 12 = 4x$, so $60 = 4x$, $x = 60 \div 4 = 15$.

56. Divide ₹200 in the ratio 3:7. What is the larger share?

A) 140

B) 130

C) 120

D) 110

Answer: A

Explanation: Sum of ratio parts: $3 + 7 = 10$. Larger share: $(7/10) \times 200 = 140$.

57. If $6:5 = x:10$, what is x ?

A) 12

B) 11

C) 10

D) 9

Answer: A

Explanation: Proportion: $6/5 = x/10$. Cross-multiply: $6 \times 10 = 5x$, so $60 = 5x$, $x = 60 \div 5 = 12$.

58. A shop sells 4 eggs for ₹20. How much for 12 eggs?

A) 60

B) 50

C) 40

D) 30

Answer: A

Explanation: Ratio of eggs to cost is 4:20. For 12 eggs: $(12/4) \times 20 = 3 \times 20 = 60$.

59. If $7:3 = x:9$, what is x ?

A) 21

B) 20

C) 19

D) 18

Answer: A

Explanation: Proportion: $7/3 = x/9$. Cross-multiply: $7 \times 9 = 3x$, so $63 = 3x$, $x = 63 \div 3 = 21$.

60. Divide ₹80 in the ratio 2:6. What is the smaller share?

A) 26

B) 22

C) 24

D) 20

Answer: D

Explanation: Sum of ratio parts: $2 + 6 = 8$. Smaller share: $(2/8) \times 80 = 20$.

61. If $4:3 = x:12$, what is x ?

A) 16

B) 15

C) 14

D) 13

Answer: A

Explanation: Proportion: $\frac{4}{3} = \frac{x}{12}$. Cross-multiply: $4 \times 12 = 3x$, so $48 = 3x$, $x = 48 \div 3 = 16$.

62. A shop sells 5 pens for ₹25. How much for 20 pens?

A) 130

B) 100

C) 120

D) 110

Answer: B

Explanation: Ratio of pens to cost is 5:25. For 20 pens: $(20/5) \times 25 = 4 \times 25 = 100$.

63. If $3:8 = 6:x$, what is x ?

A) 15

B) 16

C) 14

D) 13

Answer: B

Explanation: Proportion: $\frac{3}{8} = \frac{6}{x}$. Cross-multiply: $3x = 8 \times 6$, so $3x = 48$, $x = 48 \div 3 = 16$.

64. Divide ₹120 in the ratio 5:7. What is the larger share?

A) 68

B) 70

C) 66

D) 64

Answer: B

Explanation: Sum of ratio parts: $5 + 7 = 12$. Larger share: $(7/12) \times 120 = 70$.

65. If $5:9 = x:18$, what is x ?

A) 11

B) 10

C) 12

D) 13

Answer: B

Explanation: Proportion: $5/9 = x/18$. Cross-multiply: $5 \times 18 = 9x$, so $90 = 9x$, $x = 90 \div 9 = 10$.

66. A shop sells 3 kg of sugar for ₹60. How much for 9 kg of sugar?

A) 182

B) 170

C) 160

D) 180

Answer: D

Explanation: Ratio of sugar to cost is 3:60. For 9 kg: $(9/3) \times 60 = 3 \times 60 = 180$.

67. If $2:5 = 8:x$, what is x ?

A) 16

B) 19

C) 18

D) 20

Answer: D

Explanation: Proportion: $2/5 = 8/x$. Cross-multiply: $2x = 5 \times 8$, so $2x = 40$, $x = 40 \div 2 = 20$.

68. Divide ₹90 in the ratio 4:5. What is the smaller share?

A) 40

B) 42

C) 44

D) 46

Answer: A

Explanation: Sum of ratio parts: $4 + 5 = 9$. Smaller share: $(4/9) \times 90 = 40$.

69. If $6:7 = x:14$, what is x ?

A) 12

B) 11

C) 10

D) 9

Answer: A

Explanation: Proportion: $\frac{6}{7} = \frac{x}{14}$. Cross-multiply: $6 \times 14 = 7x$, so $84 = 7x$, $x = 84 \div 7 = 12$.

70. A shop sells 4 notebooks for ₹80. How much for 12 notebooks?

A) 242

B) 230

C) 240

D) 210

Answer: C

Explanation: Ratio of notebooks to cost is 4:80. For 12 notebooks: $(12/4) \times 80 = 3 \times 80 = 240$.

71. If $3:4 = x:16$, what is x ?

A) 12

B) 13

C) 14

D) 15

Answer: A

Explanation: Proportion: $\frac{3}{4} = \frac{x}{16}$. Cross-multiply: $3 \times 16 = 4x$, so $48 = 4x$, $x = 48 \div 4 = 12$.

72. Divide ₹100 in the ratio 3:2. What is the larger share?

A) 58

B) 60

C) 56

D) 54

Answer: B

Explanation: Sum of ratio parts: $3 + 2 = 5$. Larger share: $(\frac{3}{5}) \times 100 = 60$.

73. If $5:3 = x:9$, what is x ?

A) 15

B) 14

C) 13

D) 12

Answer: A

Explanation: Proportion: $5/3 = x/9$. Cross-multiply: $5 \times 9 = 3x$, so $45 = 3x$,
 $x = 45 \div 3 = 15$.

74. A shop sells 6 eggs for ₹30. How much for 18 eggs?

A) 90

B) 85

C) 80

D) 75

Answer: A

Explanation: Ratio of eggs to cost is 6:30. For 18 eggs: $(18/6) \times 30 = 3 \times 30 = 90$.

75. If $4:5 = x:10$, what is x ?

A) 8

B) 9

C) 10

D) 11

Answer: A

Explanation: Proportion: $4/5 = x/10$. Cross-multiply: $4 \times 10 = 5x$, so $40 = 5x$, $x = 40 \div 5 = 8$.

76. Divide ₹80 in the ratio 1:3. What is the larger share?

A) 60

B) 58

C) 56

D) 54

Answer: A

Explanation: Sum of ratio parts: $1 + 3 = 4$. Larger share: $(3/4) \times 80 = 60$.

77. If $2:3 = x:12$, what is x ?

A) 8

- B) 9
- C) 10
- D) 11

Answer: A

Explanation: Proportion: $\frac{2}{3} = \frac{x}{12}$. Cross-multiply: $2 \times 12 = 3x$, so $24 = 3x$, $x = 24 \div 3 = 8$.

78. A shop sells 5 kg of flour for ₹100. How much for 15 kg of flour?

- A) 300
- B) 290
- C) 280
- D) 270

Answer: A

Explanation: Ratio of flour to cost is 5:100. For 15 kg: $(15/5) \times 100 = 3 \times 100 = 300$.

79. If $7:4 = x:12$, what is x ?

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

Answer: A

Explanation: Proportion: $\frac{7}{4} = \frac{x}{12}$. Cross-multiply: $7 \times 12 = 4x$, so $84 = 4x$, $x = 84 \div 4 = 21$.

80. Divide ₹60 in the ratio 2:4. What is the smaller share?

- A) 26
- B) 22
- C) 24
- D) 20

Answer: D

Explanation: Sum of ratio parts: $2 + 4 = 6$. Smaller share: $(2/6) \times 60 = 20$.

Section 3: High Difficulty - Complex Multi-Step Problems and Mixed Applications (Questions 81–100)

81. The ratio of two numbers is 3:4, and their sum is 28. What is the smaller number?

- A) 14
- B) 12
- C) 16
- D) 18

Answer: B

Explanation: Let numbers be $3x$ and $4x$. Then, $3x + 4x = 28$, so $7x = 28$, $x = 4$. Smaller number: $3 \times 4 = 12$.

82. A and B divide ₹120 in the ratio 2:3. How much more does B get than A?

- A) 42
- B) 24
- C) 20
- D) 18

Answer: B

Explanation: Sum of ratio parts: $2 + 3 = 5$. A's share: $(2/5) \times 120 = 48$. B's share: $(3/5) \times 120 = 72$. Difference: $72 - 48 = 24$.

83. If 4 men complete a work in 8 days, how many days will 8 men take?

- A) 6
- B) 2
- C) 4
- D) 8

Answer: C

Explanation: Inverse proportion: Men and days are inversely related. $(4 \times 8) = (8 \times x)$, so $32 = 8x$, $x = 32 \div 8 = 4$.

84. The ratio of two numbers is 5:7, and their difference is 8. What is the larger number?

- A) 28
- B) 26
- C) 24

D) 22

Answer: A

Explanation: Let numbers be $5x$ and $7x$. Then, $7x - 5x = 8$, so $2x = 8$, $x =$

4. Larger number: $7 \times 4 = 28$.

85. A shop sells 3 kg of rice for ₹45 and 2 kg of wheat for ₹30. What is the cost of 9 kg of rice and 6 kg of wheat?

A) 245

B) 235

C) 225

D) 255

Answer: C

Explanation: Rice per kg: $45 \div 3 = 15$; 9 kg rice: $9 \times 15 = 135$. Wheat per kg: $30 \div 2 = 15$; 6 kg wheat: $6 \times 15 = 90$. Total: $135 + 90 = 225$

86. If $3:5 = x:20$, what is x ?

A) 12

B) 13

C) 14

D) 15

Answer: A

Explanation: Proportion: $3/5 = x/20$. Cross-multiply: $3 \times 20 = 5x$, so $60 = 5x$, $x = 60 \div 5 = 12$.

87. If 6 workers complete a job in 12 days, how many days will 4 workers take?

A) 18

B) 16

C) 14

D) 12

Answer: A

Explanation: Inverse proportion: $(6 \times 12) = (4 \times x)$, so $72 = 4x$, $x = 72 \div 4 = 18$.

88. The ratio of two numbers is 2:5, and their sum is 35. What is the larger number?

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

Answer: A

Explanation: Let numbers be $2x$ and $5x$. Then, $2x + 5x = 35$, so $7x = 35$, $x = 5$. Larger number: $5 \times 5 = 25$.

89. A and B divide ₹200 in the ratio 3:5. How much less does A get than B?

- A) 50
- B) 48
- C) 46
- D) 44

Answer: A

Explanation: Sum of ratio parts: $3 + 5 = 8$. A's share: $(3/8) \times 200 = 75$. B's share: $(5/8) \times 200 = 125$. Difference: $125 - 75 = 50$.

90. If 5 machines produce 100 items in 10 days, how many days will 10 machines take to produce 100 items?

- A) 5
- B) 6
- C) 7
- D) 8

Answer: A

Explanation: Inverse proportion: $(5 \times 10) = (10 \times x)$, so $50 = 10x$, $x = 50 \div 10 = 5$.

91. The ratio of two numbers is 4:3, and their difference is 4. What is the smaller number?

- A) 12
- B) 11
- C) 10
- D) 9

Answer: A

Explanation: Let numbers be $4x$ and $3x$. Then, $4x - 3x = 4$, so $x = 4$.
Smaller number: $3 \times 4 = 12$.

92. A shop sells 2 kg of sugar for ₹40 and 3 kg of rice for ₹60. What is the cost of 6 kg of sugar and 9 kg of rice?

- A) 310
- B) 350
- C) 330
- D) 300

Answer: D

Explanation: Sugar per kg: $40 \div 2 = 20$; 6 kg sugar: $6 \times 20 = 120$. Rice per kg: $60 \div 3 = 20$; 9 kg rice: $9 \times 20 = 180$. Total: $120 + 180 = 300$

93. If $3:4 = x:20$, what is x ?

- A) 15
- B) 14
- C) 13
- D) 12

Answer: A

Explanation: Proportion: $3/4 = x/20$. Cross-multiply: $3 \times 20 = 4x$, so $60 = 4x$, $x = 60 \div 4 = 15$.

94. If 8 workers complete a task in 6 days, how many days will 4 workers take?

- A) 12
- B) 11
- C) 10
- D) 9

Answer: A

Explanation: Inverse proportion: $(8 \times 6) = (4 \times x)$, so $48 = 4x$, $x = 48 \div 4 = 12$.

95. The ratio of two numbers is 5:2, and their sum is 35. What is the larger number?

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

Answer: A

Explanation: Let numbers be $5x$ and $2x$. Then, $5x + 2x = 35$, so $7x = 35$, $x = 5$. Larger number: $5 \times 5 = 25$.

96. A and B divide ₹150 in the ratio 2:3. How much more does B get than A?

- A) 30
- B) 28
- C) 26
- D) 24

Answer: A

Explanation: Sum of ratio parts: $2 + 3 = 5$. A's share: $(2/5) \times 150 = 60$. B's share: $(3/5) \times 150 = 90$. Difference: $90 - 60 = 30$.

97. If 6 machines produce 120 items in 8 days, how many days will 12 machines take to produce 120 items?

- A) 4
- B) 5
- C) 6
- D) 7

Answer: A

Explanation: Inverse proportion: $(6 \times 8) = (12 \times x)$, so $48 = 12x$, $x = 48 \div 12 = 4$.

98. The ratio of two numbers is 3:5, and their difference is 10. What is the smaller number?

- A) 15
- B) 14
- C) 13
- D) 12

Answer: A

Explanation: Let numbers be $3x$ and $5x$. Then, $5x - 3x = 10$, so $2x = 10$, $x = 5$. Smaller number: $3 \times 5 = 15$.

99. A shop sells 3 kg of wheat for ₹45 and 2 kg of rice for ₹40. What is the cost of 9 kg of wheat and 6 kg of rice?

A) 455

B) 355

C) 255

D) 525

Answer: C

Explanation: Wheat per kg: $45 \div 3 = 15$; 9 kg wheat: $9 \times 15 = 135$. Rice per kg: $40 \div 2 = 20$; 6 kg rice: $6 \times 20 = 120$. Total: $135 + 120 = 255$

100. If $5:6 = x:18$, what is x ?

A) 15

B) 14

C) 13

D) 12

Answer: A

Explanation: Proportion: $5/6 = x/18$. Cross-multiply: $5 \times 18 = 6x$, so $90 = 6x$, $x = 90 \div 6 = 15$.

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