=== TOPIC: percentages, LEVEL: easy ===

1. What is 45% of 320?

A) 144

B) 134

C) 154

D) 124

Answer: A

2. Express 2/5 as a percentage:

A) 30%

B) 40%

C) 50%

D) 60%

Answer: B

3. A shopkeeper sells 25% of his stock and is left with 225 items. How many items did he originally have?

A) 280

B) 300

C) 320

D) 260

Answer: B

4. If 35% of a number is 70, what is the number?

A) 190

B) 210

C) 200

D) 180

Answer: C

5. What percentage of 400 is 80?

A) 15%

B) 25%

C) 20%

D) 30%

Answer: C

6. A student scores 75 marks out of 150. What is his percentage score?

A) 45%

B) 55%

C) 50%

D) 60%

Answer: C

7. If 15% of x = 30, what is x?

A) 180

B) 200

C) 220

D) 160

Answer: B

8. Express 0.6 as a percentage:

A) 60%

B) 6%

C) 600%

D) 0.6%

Answer: A

9. A book costs Rs. 240 after a 20% discount. What was the original price?

A) Rs. 290

B) Rs. 300

C) Rs. 280

D) Rs. 310

Answer: B

10. What is 30% of 500?

A) 140

B) 150

C) 160

D) 130

Answer: B

11. If 40% of a class of 50 students are girls, how many girls are there?

A) 18

B) 20

C) 22

D) 16

Answer: B

12. A vendor sells 20% of his fruits and has 160 left. How many fruits did he originally have?

A) 190

B) 200

C) 210

D) 180

Answer: B

13. What is 25% of 400?

A) 90

B) 100

C) 110

D) 80

Answer: B

14. If 20% of a number is 40, what is the number?

A) 190

B) 200

C) 210

D) 180

Answer: B

15. Express 3/4 as a percentage:

A) 65%

B) 75%

C) 85%

D) 55%

Answer: B

16. A shopkeeper sells 30% of his stock and is left with 140 items. How many items did he originally have?

A) 190

B) 200

C) 210

D) 180

Answer: B

17. If 10% of a number is 25, what is the number?

A) 240

B) 250

C) 260

D) 230

Answer: B

18. What percentage of 250 is 50?

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

19. A student scores 36 out of 60. What is the percentage score?

A) 55%

B) 60%

C) 65%

D) 50%

Answer: B

20. If 50% of x = 100, what is x?

A) 190

B) 200

C) 210

D) 180

Answer: B

21. Express 0.25 as a percentage:

A) 25%

B) 2.5%

C) 250%

D) 0.25%

Answer: A

22. A book costs Rs. 160 after a 20% discount. What was the original price?

A) Rs. 190

B) 200

C) Rs. 210

D) Rs. 180

Answer: B

23. What is 15% of 300?

A) 40

B) 45

C) 50

D) 35

Answer: B

24. If 25% of a class of 80 students are girls, how many girls are there?

A) 18

B) 20

C) 22

D) 16

Answer: B

25. What percentage of 600 is 120?

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

26. A vendor sells 40% of his fruits and has 120 left. How many fruits did he originally have?

A) 190

B) 200

C) 210

D) 180

Answer: B

27. Express 1/2 as a percentage:

A) 40%

B) 50%

C) 60%

D) 30%

Answer: B

28. If 5% of a number is 15, what is the number?

A) 290

B) 300

C) 310

D) 280

Answer: B

29. A student scores 90 out of 120. What is the percentage score?

A) 70%

B) 75%

C) 80%

D) 85%

Answer: B

30. What is 35% of 200?

A) 60

B) 70

C) 80

D) 50

Answer: B

31. If 30% of x = 60, what is x?

A) 190

B) 200

C) 210

D) 180

Answer: B

32. Express 0.8 as a percentage:

A) 80%

B) 8%

C) 800%

D) 0.8%

Answer: A

33. A shopkeeper sells 15% of his stock and is left with 255 items. How many items did he originally have?

A) 290

B) 300

C) 310

D) 280

Answer: B

34. What percentage of 150 is 30?

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

35. If 40% of a number is 80, what is the number?

A) 190

B) 200

C) 210

D) 180

Answer: B

36. A book costs Rs. 180 after a 10% discount. What was the original price?

A) 190

B) 200

C) 210

D) 180

Answer: B

37. What is 20% of 450?

A) 80

B) 90

C) 100

D) 70

Answer: B

38. Express 4/5 as a percentage:

A) 70%

B) 80%

C) 90%

D) 60%

Answer: B

39. If 25% of a class of 40 students are girls, how many girls are there?

A) 8

B) 10

C) 12

D) 14

Answer: B

40. A vendor sells 35% of his fruits and has 130 left. How many fruits did he originally have?

A) 190

B) 200

C) 210

D) 180

Answer: B

41. What is 10% of 350?

A) 30

B) 35

C) 40

D) 25

Answer: B

42. If 45% of a number is 90, what is the number?

A) 190

B) 200

C) 210

D) 180

Answer: B

43. A student scores 64 out of 80. What is the percentage score?

A) 75%

B) 80%

C) 85%

D) 70%

Answer: B

44. Express 0.3 as a percentage:

A) 30%

B) 3%

C) 300%

D) 0.3%

Answer: A

45. What is 50% of 200?

A. 50

B. 100

C. 150

D. 200

Answer: B

46. Calculate 25% of 80

A. 15

B. 20

C. 25

D. 30

Answer: B

47. If 30% of a number is 90, what is the number?

A. 270

B. 300

C. 330

D. 360

Answer: B

48. What is 40% of 150?

A) 50

B) 60

C) 70

D) 80

Answer: B

49. Express 1/3 as a percentage:

A) 25%

B) 33.33%

C) 40%

D) 50%

Answer: B

50. A shopkeeper marks up 10% and sells at cost price. Discount given?

A) 10%

B) 9.09%

C) 8%

D) 5%

Answer: B

=== TOPIC: percentages, LEVEL: medium ===

1. If A's income is 20% more than B's, and B's is 25% less than C's, by what percentage is A's income less than C's?

A) 5%

B) 10%

C) 15%

D) 20%

Answer: A

2. A number is increased by 30% and then decreased by 30%. What is the net percentage change?

A) -9%

B) 0%

C) 9%

D) 18%

Answer: A

3. If the price of a commodity is increased by 25%, by what percentage should the consumption be reduced to keep the expenditure same?

A) 16.67%

B) 20%

C) 25%

D) 30%

Answer: A

4. A's salary is 40% more than B's. B's salary is 25% more than C's. By what percentage is A's salary more than C's?

A) 70%

B) 72.5%

C) 75%

D) 80%

Answer: B

5. In an exam, 30% students failed in A, 25% in B, and 10% in both. What percentage passed in both?

A) 45%

B) 50%

C) 55%

D) 60%

Answer: A

6. If 40% of a number is 240, what is 60% of that number?

A) 300

B) 360

C) 400

D) 420

Answer: B

7. The population of a town is 120000. If it increases by 10% in the first year and 20% in the second year, what is the population after 2 years?

A) 145200

B) 150000

C) 158400

D) 162000

Answer: C

8. A discount of 20% and 10% is given on a shirt of Rs. 500. What is the selling price?

A) Rs. 360

B) Rs. 380

C) Rs. 400

D) Rs. 420

Answer: A

9. If 3/8 of a number is 48, what is 5/6 of that number?

A) 80

B) 90

C) 100

D) 110

Answer: A

10. The average of 5 numbers is 60. If one number is 20% more than the average, what is the average of the other 4?

A) 55

B) 57.5

C) 60

D) 62.5

Answer: B

11. A man's salary is reduced by 10%, then increased by 10%. What is the net change?

A) No change

B) 1% decrease

C) 1% increase

D) 2% decrease

Answer: B

12. In a school, 40% students are boys. Of the boys, 50% play cricket, and of the girls, 30% play cricket. If 35% of the school plays cricket, what percentage of students are girls?

A) 40%

B) 45%

C) 50%

D) 55%

Answer: C

13. A product is sold at a 20% loss if marked at Rs. 500. If sold at 20% profit, what should be the marked price?

A) Rs. 600

B) Rs. 625

C) Rs. 650

D) Rs. 675

Answer: B

14. If the cost price is 80% of the selling price, what is the profit percentage?

A) 20%

B) 25%

C) 30%

D) 40%

Answer: B

15. A number when increased by 20% becomes 120. What was the original number?

A) 90

B) 95

C) 100

D) 105

Answer: C

16. In a test, the marks of 3 students are in the ratio 3:4:5. If the average is 57, what is the difference between highest and lowest marks?

A) 18

B) 20

C) 22

D) 24

Answer: A

17. If 25% of a = 20% of b, what is (a - b)/b * 100%?

A) 20%

B) 25%

C) 30%

D) 35%

Answer: B

18. The price of petrol increases by 25%. By what percentage should the consumption be reduced to keep expenditure same?

A) 16.67%

B) 20%

C) 25%

D) 30%

Answer: A

19. A's age is 25% more than B's. B's age is 20% less than C's. What is A's age as percentage of C's age?

A) 80%

B) 85%

C) 90%

D) 95%

Answer: A

20. In a company, 60% employees are male, and 40% of males are married. If 50% of the company is married, what percentage of females are married?

A) 25%

B) 30%

C) 35%

D) 40%

Answer: A

21. A sum is Rs. 400 more when calculated at compound interest for 2 years at 10% than at simple interest. What is the principal?

A) Rs. 10000

B) Rs. 20000

C) Rs. 30000

D) Rs. 40000

Answer: A

22. A train travels 20% faster than usual and reaches 40 minutes early. What is the usual time?

A) 2 hours

B) 2.5 hours

C) 3 hours

D) 3.5 hours

Answer: A

23. The marks of a student are 20% less than the maximum. If maximum is 500, what is his score if he got 80% of his marks?

A) 320

B) 340

C) 360

D) 380

Answer: A

24. If 40 liters of a mixture contain milk and water in 3:1, how much water should be added to make milk 25%?

A) 20 liters

B) 24 liters

C) 28 liters

D) 32 liters

Answer: B

25. A's weight is 120% of B's. B's weight is 80% of C's. What is A's weight as percentage of C's?

A) 90%

B) 95%

C) 100%

D) 105%

Answer: A

26. In an election, candidate A gets 45% votes, B gets 30%, and rest are invalid. If total votes 10000, how many valid votes for C?

A) 2000

B) 2200

C) 2400

D) 2600

Answer: A

27. The cost of a book is increased by 10%. By what percentage should the selling price be increased to maintain the same profit percentage?

A) 10%

B) 11%

C) 12%

D) 13%

Answer: B

28. If 1/5 of a number is 50, what is 40% of that number?

A) 120

B) 140

C) 160

D) 180

Answer: C

29. A rectangle's length is 20% more than width. If area is 576 sq cm, what is the width?

A) 12 cm

B) 14 cm

C) 16 cm

D) 18 cm

Answer: A

30. The salary of a worker is first increased by 20% and then decreased by 20%. What is the net change?

A) No change

B) 4% decrease

C) 4% increase

D) 2% decrease

Answer: B

31. In a class, 35% students are absent on Monday, 45% on Tuesday. If 20% absent on both days, what percentage present on both days?

A) 20%

B) 25%

C) 30%

D) 35%

Answer: A

32. A shopkeeper marks up 25% and gives 20% discount. What is the profit percentage?

A) 0%

B) 2%

C) 4%

D) 5%

Answer: D

33. If the price of sugar rises by 25%, by what percentage a family should reduce consumption to keep expenditure same, if they buy 40 kg/month?

A) 16.67%

B) 20%

C) 25%

D) 30%

Answer: A

34. Two numbers are 20% and 50% more than a third number. The ratio of the two numbers is:

A) 2:5

B) 3:5

C) 4:5

D) 5:6

Answer: A

35. The population increases by 10% annually. In how many years does it double?

A) 7

B) 8

C) 9

D) 10

Answer: A

36. A man spends 75% of income. If income doubles, he saves Rs. 5000. What is his original income?

A) Rs. 20000

B) Rs. 25000

C) Rs. 30000

D) Rs. 35000

Answer: A

37. If 60% of A = 75% of B, what is B:A?

A) 4:5

B) 5:4

C) 3:4

D) 4:3

Answer: A

38. A's marks are 25% of total. If total 400, and he scored 80, what percentage did he score?

A) 20%

B) 25%

C) 30%

D) 35%

Answer: A

39. The price of a house is Rs. 400000. It is sold at 10% loss. What is the selling price if cost is reduced by 10%?

A) Rs. 324000

B) Rs. 336000

C) Rs. 348000

D) Rs. 360000

Answer: D

40. If A's income is 30% more than B's, and B's is 20% less than C's, by what percentage is A's income less than C's?

A) 8%

B) 10%

C) 12%

D) 14%

Answer: A

41. A number is increased by 25% and then decreased by 25%. What is the net percentage change?

A) -6.25%

B) 0%

C) 6.25%

D) 12.5%

Answer: A

42. If the price of a commodity is increased by 20%, by what percentage should the consumption be reduced to keep the expenditure same?

A) 16.67%

B) 20%

C) 25%

D) 30%

Answer: A

43. A's salary is 50% more than B's. B's salary is 20% more than C's. By what percentage is A's salary more than C's?

A) 70%

B) 80%

C) 90%

D) 100%

Answer: A

44. In an exam, 40% students failed in A, 30% in B, and 15% in both. What percentage passed in both?

A) 45%

B) 50%

C) 55%

D) 60%

Answer: A

45. If 50% of a number is 250, what is 30% of that number?

A) 140

B) 150

C) 160

D) 170

Answer: B

46. The population of a town is 150000. If it increases by 15% in the first year and 25% in the second year, what is the population after 2 years?

A) 180000

B) 191250

C) 202500

D) 210000

Answer: C

47. If the price of a commodity increases by 30%, by what percentage should consumption decrease to keep expenditure constant?

A) 23.08%

B) 25%

C) 30%

D) 33.33%

Answer: A

48. A's income is 15% more than B's, B's 10% less than C's. A's income as % of C's?

A) 92%

B) 94%

C) 96%

D) 98%

Answer: C

49. In a group, 70% are male, 50% of males promoted. If 40% group promoted, % females promoted?

A) 20%

B) 25%

C) 30%

D) 35%

Answer: C

50. A sum Rs. 500 more at CI 2 years 12% than SI. Principal?

A) Rs. 6250

B) Rs. 7500

C) Rs. 8750

D) Rs. 10000

Answer: A

=== TOPIC: percentages, LEVEL: hard ===

1. In a mixture of 80 liters, the ratio of milk and water is 2:1. If the price of milk is increased by 20%, by what percentage should the water be increased to keep the price same?

A) 40%

B) 50%

C) 60%

D) 70%

Answer: A

2. A sum is invested at compound interest. The amount becomes 121% in 2 years. What is the rate of interest?

A) 10%

B) 10.5%

C) 11%

D) 11.5%

Answer: A

3. A product is sold at a 15% loss if marked at Rs. 400. If sold at 25% profit, what should be the marked price?

A) Rs. 470

B) 500

C) Rs. 530

D) Rs. 560

Answer: B

4. If the cost price is 75% of the selling price, what is the profit percentage?

A) 25%

B) 30%

C) 33.33%

D) 40%

Answer: C

5. In a school, 50% students are boys. Of the boys, 40% play cricket, and of the girls, 25% play cricket. If 32% of the school plays cricket, what percentage of students are girls?

A) 40%

B) 45%

C) 50%

D) 55%

Answer: A

6. A sum is Rs. 300 more when calculated at compound interest for 2 years at 12% than at simple interest. What is the principal?

A) Rs. 6250

B) Rs. 7500

C) Rs. 8750

D) Rs. 10000

Answer: A

7. A train travels 25% faster than usual and reaches 30 minutes early. What is the usual time?

A) 1.5 hours

B) 2 hours

C) 2.5 hours

D) 3 hours

Answer: B

8. If 50% of A = 60% of B, what is B:A?

A) 5:6

B) 6:5

C) 4:5

D) 5:4

Answer: A

9. The cost of a book is increased by 15%. By what percentage should the selling price be increased to maintain the same profit percentage?

A) 15%

B) 17.65%

C) 20%

D) 25%

Answer: B

10. If 1/4 of a number is 40, what is 50% of that number?

A) 200

B) 220

C) 240

D) 260

Answer: A

11. A rectangle's length is 25% more than width. If area is 720 sq cm, what is the width?

A) 12 cm

B) 14 cm

C) 16 cm

D) 18 cm

Answer: A

12. The salary of a worker is first increased by 25% and then decreased by 25%. What is the net change?

A) No change

B) 6.25% decrease

C) 6.25% increase

D) 12.5% decrease

Answer: B

13. In a class, 40% students are absent on Monday, 50% on Tuesday. If 25% absent on both days, what percentage present on both days?

A) 15%

B) 20%

C) 25%

D) 30%

Answer: A

14. A shopkeeper marks up 30% and gives 15% discount. What is the profit percentage?

A) 10.5%

B) 12.75%

C) 15%

D) 17.25%

Answer: C

15. If the price of sugar rises by 20%, by what percentage a family should reduce consumption to keep expenditure same, if they buy 50 kg/month?

A) 16.67%

B) 20%

C) 25%

D) 30%

Answer: A

16. Two numbers are 30% and 40% more than a third number. The ratio of the two numbers is:

A) 7:8

B) 8:9

C) 9:10

D) 10:11

Answer: A

17. The population increases by 12% annually. In how many years does it double?

A) 6

B) 7

C) 8

D) 9

Answer: A

18. A man spends 80% of income. If income doubles, he saves Rs. 4000. What is his original income?

A) Rs. 10000

B) Rs. 20000

C) Rs. 30000

D) Rs. 40000

Answer: B

19. If 70% of A = 80% of B, what is B:A?

A) 7:8

B) 8:7

C) 6:7

D) 7:6

Answer: A

20. A's marks are 30% of total. If total 500, and he scored 120, what percentage did he score?

A) 20%

B) 24%

C) 28%

D) 32%

Answer: B

21. The price of a house is Rs. 500000. It is sold at 15% loss. What is the selling price if cost is reduced by 15%?

A) Rs. 425000

B) Rs. 450000

C) Rs. 475000

D) Rs. 500000

Answer: A

22. In a mixture of 60 liters, the ratio of milk and water is 3:2. If the price of milk is increased by 25%, by what percentage should the water be increased to keep the price same?

A) 37.5%

B) 50%

C) 62.5%

D) 75%

Answer: A

23. A sum is invested at compound interest. The amount becomes 144% in 2 years. What is the rate of interest?

A) 10%

B) 12%

C) 14%

D) 16%

Answer: B

24. A product is sold at a 25% loss if marked at Rs. 600. If sold at 30% profit, what should be the marked price?

A) Rs. 780

B) Rs. 800

C) Rs. 820

D) Rs. 840

Answer: B

25. If the cost price is 70% of the selling price, what is the profit percentage?

A) 35%

B) 40%

C) 42.86%

D) 50%

Answer: C

26. In a school, 60% students are boys. Of the boys, 50% play cricket, and of the girls, 20% play cricket. If 38% of the school plays cricket, what percentage of students are girls?

A) 35%

B) 40%

C) 45%

D) 50%

Answer: B

27. A sum is Rs. 500 more when calculated at compound interest for 2 years at 10% than at simple interest. What is the principal?

A) Rs. 25000

B) Rs. 30000

C) Rs. 35000

D) Rs. 40000

Answer: A

28. A train travels 30% faster than usual and reaches 24 minutes early. What is the usual time?

A) 1 hour

B) 1.2 hours

C) 1.5 hours

D) 1.8 hours

Answer: D

29. If 40% of A = 50% of B, what is B:A?

A) 4:5

B) 5:4

C) 3:4

D) 4:3

Answer: A

30. The cost of a book is increased by 20%. By what percentage should the selling price be increased to maintain the same profit percentage?

A) 20%

B) 25%

C) 30%

D) 33.33%

Answer: B

31. If 2/5 of a number is 60, what is 60% of that number?

A) 144

B) 160

C) 176

D) 192

Answer: A

32. A rectangle's length is 30% more than width. If area is 910 sq cm, what is the width?

A) 13 cm

B) 14 cm

C) 15 cm

D) 16 cm

Answer: B

33. The salary of a worker is first increased by 30% and then decreased by 30%. What is the net change?

A) No change

B) 9% decrease

C) 9% increase

D) 18% decrease

Answer: B

34. In a class, 30% students are absent on Monday, 40% on Tuesday. If 15% absent on both days, what percentage present on both days?

A) 25%

B) 30%

C) 35%

D) 40%

Answer: A

35. A shopkeeper marks up 40% and gives 25% discount. What is the profit percentage?

A) 10%

B) 12%

C) 15%

D) 18%

Answer: A

36. If the price of sugar rises by 30%, by what percentage a family should reduce consumption to keep expenditure same, if they buy 30 kg/month?

A) 23.08%

B) 25%

C) 30%

D) 33.33%

Answer: A

37. Two numbers are 40% and 60% more than a third number. The ratio of the two numbers is:

A) 7:9

B) 8:10

C) 9:11

D) 10:12

Answer: A

38. The population increases by 8% annually. In how many years does it double?

A) 8

B) 9

C) 10

D) 11

Answer: B

39. A man spends 70% of income. If income doubles, he saves Rs. 6000. What is his original income?

A) Rs. 20000

B) Rs. 30000

C) Rs. 40000

D) Rs. 50000

Answer: B

40. If 55% of A = 65% of B, what is B:A?

A) 11:13

B) 13:11

C) 10:12

D) 12:10

Answer: A

41. A's marks are 20% of total. If total 600, and he scored 100, what percentage did he score?

A) 16.67%

B) 20%

C) 23.33%

D) 25%

Answer: A

42. The price of a house is Rs. 300000. It is sold at 20% loss. What is the selling price if cost is reduced by 20%?

A) Rs. 240000

B) Rs. 250000

C) Rs. 260000

D) Rs. 270000

Answer: A

43. If price rises 40%, consumption reduce % for same expenditure?

A) 28.57%

B) 30%

C) 33.33%

D) 35%

Answer: A

44. A's salary 35% more than B's, B's 15% less than C's. A's % of C's?

A) 85%

B) 88%

C) 91%

D) 94%

Answer: C

45. 65% male, 60% males married. If 50% total married, % females married?

A) 30%

B) 35%

C) 40%

D) 45%

Answer: B

46. Sum Rs. 600 more CI 2 yrs 15% than SI. Principal?

A) Rs. 8000

B) Rs. 9000

C) Rs. 10000

D) Rs. 11000

Answer: A

47. Train 35% faster, 36 min early. Usual time?

A) 2 hours

B) 2.5 hours

C) 3 hours

D) 3.5 hours

Answer: C

48. Marks 25% less max. Max 400, scored 75% marks. Score?

A) 225

B) 240

C) 255

D) 270

Answer: A

49. 50L mixture milk:water 4:1, water add for 40% milk?

A) 10L

B) 12.5L

C) 15L

D) 20L

Answer: A

50. A's height 110% B's, B's 90% C's. A's % C's?

A) 95%

B) 99%

C) 100%

D) 105%

Answer: B

=== TOPIC: profit and loss, LEVEL: easy ===

1. A shopkeeper buys an item for Rs. 200 and sells it for Rs. 240. What is his profit percentage?

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

2. If an article is sold at a loss of 10%, and the cost price is Rs. 500, what is the selling price?

A) Rs. 450

B) Rs. 460

C) Rs. 470

D) Rs. 480

Answer: A

3. A man buys a book for Rs. 150 and sells it for Rs. 180. Find the gain percentage.

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

4. If the selling price is Rs. 300 and there is a loss of 20%, what is the cost price?

A) Rs. 350

B) Rs. 360

C) Rs. 370

D) Rs. 375

Answer: D

5. A trader purchases 20 kg of rice at Rs. 30 per kg and sells it at Rs. 35 per kg. What is the profit per kg?

A) Rs. 4

B) Rs. 5

C) Rs. 6

D) Rs. 7

Answer: B

6. If cost price is Rs. 400 and profit is Rs. 80, what is the profit percentage?

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

7. An item bought for Rs. 250 is sold for Rs. 200. What is the loss percentage?

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

8. Selling price is Rs. 450 with a gain of 25%. What is the cost price?

A) Rs. 350

B) Rs. 360

C) Rs. 370

D) Rs. 380

Answer: B

9. A vendor buys apples for Rs. 100 and sells for Rs. 120. Profit percentage is:

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

10. Loss is Rs. 50 on a cost price of Rs. 500. Loss percentage is:

A) 8%

B) 9%

C) 10%

D) 11%

Answer: C

11. If SP = Rs. 280 and CP = Rs. 250, gain % is:

A) 10%

B) 12%

C) 15%

D) 20%

Answer: B

12. Cost price Rs. 600, sold at Rs. 720. Profit %:

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

13. Sold at loss of 5%, SP Rs. 950. CP is:

A) Rs. 990

B) Rs. 1000

C) Rs. 1010

D) Rs. 1020

Answer: B

14. Profit Rs. 120 on CP Rs. 800. Profit %:

A) 12%

B) 15%

C) 18%

D) 20%

Answer: B

15. Item cost Rs. 300, sold Rs. 270. Loss %:

A) 5%

B) 10%

C) 15%

D) 20%

Answer: B

16. SP Rs. 400, loss 10%. CP:

A) Rs. 440

B) Rs. 445

C) Rs. 450

D) Rs. 455

Answer: C

17. Buy at Rs. 80, sell at Rs. 100. Gain %:

A) 20%

B) 25%

C) 30%

D) 35%

Answer: B

18. CP Rs. 900, profit 20%. SP:

A) Rs. 1050

B) Rs. 1080

C) Rs. 1100

D) Rs. 1120

Answer: B

19. Loss Rs. 40 on SP Rs. 360. Loss % on CP:

A) 10%

B) 11%

C) 12%

D) 13%

Answer: A

20. Trader buys for Rs. 500, sells for Rs. 550. Profit %:

A) 8%

B) 10%

C) 12%

D) 15%

Answer: B

21. SP Rs. 240, gain 20%. CP:

A) Rs. 190

B) Rs. 200

C) Rs. 210

D) Rs. 220

Answer: B

22. CP Rs. 1200, loss 15%. SP:

A) Rs. 1000

B) Rs. 1020

C) Rs. 1040

D) Rs. 1060

Answer: B

23. Profit Rs. 60 on Rs. 600. Profit %:

A) 8%

B) 10%

C) 12%

D) 15%

Answer: B

24. Sold at Rs. 85, loss 15%. CP:

A) Rs. 95

B) Rs. 100

C) Rs. 105

D) Rs. 110

Answer: B

25. Buy 10 items Rs. 200, sell Rs. 250. Profit %:

A) 20%

B) 25%

C) 30%

D) 35%

Answer: B

26. SP Rs. 700, loss 10%. CP:

A) Rs. 750

B) Rs. 760

C) Rs. 770

D) Rs. 780

Answer: C

27. CP Rs. 350, profit 30%. SP:

A) Rs. 440

B) Rs. 445

C) Rs. 450

D) Rs. 455

Answer: D

28. Loss Rs. 30 on Rs. 300. Loss %:

A) 8%

B) 10%

C) 12%

D) 15%

Answer: B

29. Sell at Rs. 480, gain 20%. CP:

A) Rs. 380

B) Rs. 400

C) Rs. 420

D) Rs. 440

Answer: B

30. CP Rs. 4000, profit Rs. 800. Profit %:

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

31. SP Rs. 135, loss 10%. CP:

A) Rs. 140

B) Rs. 145

C) Rs. 150

D) Rs. 155

Answer: C

32. Buy Rs. 220, sell Rs. 264. Gain %:

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

33. Profit 25% on Rs. 500. SP:

A) Rs. 600

B) Rs. 625

C) Rs. 650

D) Rs. 675

Answer: B

34. Loss Rs. 75 on Rs. 750. Loss %:

A) 8%

B) 10%

C) 12%

D) 15%

Answer: B

35. SP Rs. 320, gain 25%. CP:

A) Rs. 240

B) Rs. 250

C) Rs. 260

D) Rs. 270

Answer: C

36. CP Rs. 280, profit 15%. SP:

A) Rs. 310

B) Rs. 322

C) Rs. 330

D) Rs. 342

Answer: B

37. Sold at Rs. 90, loss 10%. CP:

A) Rs. 95

B) Rs. 100

C) Rs. 105

D) Rs. 110

Answer: B

38. Profit Rs. 100 on Rs. 1000. Profit %:

A) 8%

B) 10%

C) 12%

D) 15%

Answer: B

39. Buy Rs. 600, sell Rs. 660. Gain %:

A) 8%

B) 10%

C) 12%

D) 15%

Answer: B

40. SP Rs. 560, loss 20%. CP:

A) Rs. 680

B) Rs. 700

C) Rs. 720

D) Rs. 740

Answer: B

41. CP Rs. 800, profit 12%. SP:

A) Rs. 880

B) Rs. 896

C) Rs. 900

D) Rs. 912

Answer: B

42. Loss 8% on Rs. 1250. SP:

A) Rs. 1150

B) Rs. 1160

C) Rs. 1175

D) Rs. 1180

Answer: A

43. Sell at Rs. 420, gain 15%. CP:

A) Rs. 350

B) Rs. 360

C) Rs. 365

D) Rs. 370

Answer: C

44. CP Rs. 450, loss 20%. SP:

A) Rs. 350

B) Rs. 360

C) Rs. 370

D) Rs. 380

Answer: B

45. Profit Rs. 45 on Rs. 450. Profit %:

A) 8%

B) 10%

C) 12%

D) 15%

Answer: B

46. SP Rs. 250, loss 5%. CP:

A) Rs. 260

B) Rs. 263

C) Rs. 265

D) Rs. 270

Answer: B

47. Buy Rs. 160, sell Rs. 192. Gain %:

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

48. CP Rs. 1000, profit 18%. SP:

A) Rs. 1150

B) Rs. 1180

C) Rs. 1200

D) Rs. 1220

Answer: B

49. A shopkeeper buys an item for $100 and sells it for $120. What is the profit percentage?

A. 10%

B. 15%

C. 20%

D. 25%

Answer: C

50. If CP is Rs. 400, SP Rs. 500, profit %?

A) 20%

B) 25%

C) 30%

D) 35%

Answer: B

=== TOPIC: profit and loss, LEVEL: medium ===

1. If CP of 12 articles is equal to SP of 10 articles with 20% profit, how many articles should be sold to gain 20%?

A) 10

B) 12

C) 14

D) 15

Answer: A

2. A shopkeeper sells an item at 20% loss. If he had sold it for Rs. 100 more, he would have gained 20%. Find CP.

A) Rs. 500

B) Rs. 600

C) Rs. 700

D) Rs. 800

Answer: A

3. If SP is doubled, profit becomes 3 times. Original profit % is:

A) 50%

B) 66 2/3%

C) 75%

D) 100%

Answer: B

4. Cost increases by 20%, SP remains same. Original profit 50%. New profit % on SP is:

A) 25%

B) 30%

C) 33 1/3%

D) 40%

Answer: C

5. Bought at 5 for Rs. 1, sold at 4 for Rs. 1. Profit %:

A) 20%

B) 25%

C) 30%

D) 35%

Answer: B

6. If 25% loss on SP of Rs. 400, find CP.

A) Rs. 500

B) Rs. 533 1/3

C) Rs. 550

D) Rs. 600

Answer: B

7. Successive discounts of 10% and 20% equivalent to single discount of:

A) 25%

B) 28%

C) 30%

D) 32%

Answer: B

8. CP Rs. 1000, overhead 10%. SP for 25% profit:

A) Rs. 1250

B) Rs. 1375

C) Rs. 1500

D) Rs. 1650

Answer: B

9. Sold at 10% profit. If SP reduced by Rs. 20, 10% loss. Find SP.

A) Rs. 100

B) Rs. 200

C) Rs. 300

D) Rs. 400

Answer: B

10. Profit on SP is 20% when CP is 80% of SP. Profit on CP %:

A) 20%

B) 25%

C) 30%

D) 40%

Answer: B

11. If CP of x articles = SP of (x-2) at 20% profit, x is:

A) 10

B) 12

C) 15

D) 20

Answer: A

12. A man sells two items at same SP, one at 20% profit, one at 20% loss. Overall %:

A) No profit/loss

B) 4% loss

C) 4% profit

D) 8% loss

Answer: B

13. Marked price Rs. 500, 20% discount, sold at 10% profit. CP:

A) Rs. 360

B) Rs. 400

C) Rs. 440

D) Rs. 480

Answer: B

14. If 40% profit, SP = 1.4 CP. For 20% profit, SP:

A) 1.2 CP

B) 1.25 CP

C) 1.3 CP

D) 1.35 CP

Answer: A

15. Bought 30 kg at Rs. 20/kg, sold at Rs. 25/kg. Profit %:

A) 20%

B) 25%

C) 30%

D) 35%

Answer: B

16. SP same, CP increases 25%. Profit from 40% to:

A) 10%

B) 12%

C) 15%

D) 20%

Answer: C

17. Dishonest seller uses 900g as 1kg, sells at 10% profit. Actual profit %:

A) 20%

B) 22 2/9%

C) 25%

D) 30%

Answer: B

18. CP Rs. 400, SP Rs. 500. Profit % if 10% overhead:

A) 15%

B) 17.5%

C) 20%

D) 25%

Answer: B

19. To gain 20%, SP should be:

A) 110% of CP

B) 120% of CP

C) 125% of CP

D) 130% of CP

Answer: B

20. Loss 15%, SP Rs. 680. CP:

A) Rs. 800

B) Rs. 810

C) Rs. 820

D) Rs. 830

Answer: A

21. Two successive profits 10% and 20%. Equivalent single profit:

A) 28%

B) 30%

C) 32%

D) 35%

Answer: C

22. Marked Rs. 1000, 15% discount, CP Rs. 750. Profit %:

A) 10%

B) 12.5%

C) 15%

D) 20%

Answer: B

23. If SP increased by 25%, profit from 20% to:

A) 40%

B) 45%

C) 50%

D) 55%

Answer: B

24. CP of 15 articles = SP of 12 at 25% profit. Articles for 25% profit:

A) 12

B) 13

C) 14

D) 15

Answer: A

25. Sold at Rs. 100, CP Rs. 80. If sold Rs. 120, profit % increase:

A) 20%

B) 25%

C) 30%

D) 50%

Answer: D

26. 20% profit on CP Rs. 500. If CP Rs. 600, same SP profit %:

A) 15%

B) 16 2/3%

C) 20%

D) 25%

Answer: B

27. Bulk: 6 for Rs. 1, sell 5 for Rs. 1. Profit %:

A) 15%

B) 20%

C) 25%

D) 30%

Answer: B

28. Profit 30%, but sold at 10% less SP. Actual profit:

A) 15%

B) 17%

C) 20%

D) 25%

Answer: C

29. CP Rs. 2000, 20% profit after 10% expense. SP:

A) Rs. 2400

B) Rs. 2640

C) Rs. 2800

D) Rs. 3000

Answer: B

30. Equivalent loss for two 10% losses:

A) 18%

B) 19%

C) 20%

D) 21%

Answer: C

31. SP Rs. 450, 25% of CP. Profit %:

A) 30%

B) 33 1/3%

C) 40%

D) 50%

Answer: B

32. If 20 articles CP = 16 SP at 25% profit, x for 25%:

A) 16

B) 18

C) 20

D) 22

Answer: A

33. Gain 20% on SP, CP 75% SP. Profit on CP:

A) 20%

B) 25%

C) 30%

D) 40%

Answer: A

34. Successive 15% and 20% profits. Net:

A) 30%

B) 32%

C) 35%

D) 38%

Answer: C

35. Marked Rs. 800, 25% discount, sold 20% profit. CP:

A) Rs. 480

B) Rs. 500

C) Rs. 520

D) Rs. 540

Answer: B

36. CP increases 10%, SP same. Profit from 25% to:

A) 13.64%

B) 15%

C) 16.36%

D) 20%

Answer: A

37. Sold two items same CP, one 25% profit, one 25% loss. Net %:

A) 5% loss

B) 6.25% loss

C) No change

D) 5% profit

Answer: B

38. To have no loss, SP should be:

A) Equal CP

B) 110% CP

C) 120% CP

D) 125% CP

Answer: A

39. Profit 40%, SP reduced 10%. New profit:

A) 26%

B) 30%

C) 34%

D) 36%

Answer: A

40. Bulk 8 for Rs. 1, sell 6 for Rs. 1. Profit:

A) 25%

B) 30%

C) 33 1/3%

D) 40%

Answer: C

41. Loss 20% on Rs. 400. To gain 20%, SP:

A) Rs. 480

B) Rs. 500

C) Rs. 520

D) Rs. 600

Answer: A

42. CP Rs. 1200, 15% profit after 5% tax on SP. SP:

A) Rs. 1400

B) Rs. 1417.65

C) Rs. 1500

D) Rs. 1600

Answer: B

43. Equivalent profit for 10% and 10%:

A) 19%

B) 20%

C) 21%

D) 22%

Answer: C

44. SP Rs. 600, 30% profit on CP. If 20% profit, CP same:

A) Rs. 450

B) Rs. 500

C) Rs. 550

D) Rs. 600

Answer: B

45. 10 articles CP = 8 SP at 25% profit. For 25%:

A) 8

B) 9

C) 10

D) 12

Answer: A

46. Gain 15% on SP, CP 85% SP. Profit on CP:

A) 15%

B) 17.65%

C) 20%

D) 25%

Answer: B

47. Two 25% profits successive. Net:

A) 45%

B) 50%

C) 56.25%

D) 62.5%

Answer: C

48. If SP doubled, profit quadruples. Original profit %?

A) 50%

B) 66 2/3%

C) 75%

D) 100%

Answer: B

49. Original profit 100%, CP increases 50%, SP same. New profit % on original SP?

A) 25%

B) 33 1/3%

C) 40%

D) 50%

Answer: B

50. Bought at 9 for Rs. 1, sold at 6 for Rs. 1 with 20% extra cost. Profit %?

A) 20%

B) 22 2/9%

C) 25%

D) 30%

Answer: A

=== TOPIC: profit and loss, LEVEL: hard ===

1. CP of 25 articles = SP of 20 at 25% profit. How many for 50% profit?

A) 15

B) 16

C) 17

D) 18

Answer: B

2. If SP doubled, profit quadruples. Original profit %:

A) 50%

B) 66 2/3%

C) 75%

D) 100%

Answer: B

3. Original profit 100%, CP increases 50%, SP same. New profit % on original SP:

A) 25%

B) 33 1/3%

C) 40%

D) 50%

Answer: B

4. Bought at 9 for Rs. 1, sold at 6 for Rs. 1 with 20% extra cost. Profit %:

A) 20%

B) 22 2/9%

C) 25%

D) 30%

Answer: A

5. In a transaction, profit is 20% of CP and 15% of SP. Find profit %:

A) 10%

B) 12%

C) 15%

D) 18%

Answer: B

6. Marked Rs. 1200, two successive discounts 20% and 10%, sold at 20% profit. CP:

A) Rs. 720

B) Rs. 800

C) Rs. 864

D) Rs. 960

Answer: C

7. CP Rs. 5000, 30% profit after 15% expense on SP. SP:

A) Rs. 6500

B) Rs. 6896.55

C) Rs. 7000

D) Rs. 7500

Answer: B

8. Dishonest weights 800g as 1kg, sells at 25% profit on false weight. True profit:

A) 45%

B) 50%

C) 56.25%

D) 62.5%

Answer: C

9. Two items sold at same SP Rs. 100, profits 20% and 25%. Ratio of CPs:

A) 4:5

B) 5:6

C) 6:7

D) 7:8

Answer: A

10. If CP of x = SP of (x+4) at 20% loss, x:

A) 20

B) 25

C) 30

D) 40

Answer: A

11. Successive increase CP 20%, decrease SP 20%. Net effect if original profit 25%:

A) 0%

B) 4% loss

C) 4% profit

D) 8% loss

Answer: B

12. To gain 33 1/3%, SP = 4/3 CP. For no profit, adjustment:

A) Reduce SP by 25%

B) Reduce by 20%

C) Increase CP 25%

D) Increase 33 1/3%

Answer: A

13. Bulk 12 for Rs. 1, sell 8 for Rs. 1 after 10% cost rise. Profit %:

A) 20%

B) 25%

C) 30%

D) 40%

Answer: B

14. Profit 40% on SP when CP 60% SP. Profit on CP:

A) 50%

B) 66 2/3%

C) 100%

D) 150%

Answer: C

15. Three successive discounts 10%, 20%, 30%. Equivalent:

A) 40%

B) 44%

C) 48%

D) 49.2%

Answer: D

16. CP Rs. 4000, SP for 25% profit after 8% tax:

A) Rs. 4800

B) Rs. 5217.39

C) Rs. 5000

D) Rs. 5500

Answer: B

17. Sold at 10% loss on CP Rs. 900. To gain 10%, how much more SP:

A) Rs. 180

B) Rs. 200

C) Rs. 220

D) Rs. 240

Answer: A

18. Ratio CP:SP = 5:6 for two deals. Overall profit if equal CP:

A) 15%

B) 18%

C) 20%

D) 25%

Answer: C

19. If 20% profit, SP=120% CP. For 30% profit after 10% discount on SP:

A) Marked 133 1/3% CP

B) 140% CP

C) 150% CP

D) 160% CP

Answer: A

20. CP increases 25%, SP increases 20%. Profit from 20% to:

A) 0%

B) 5%

C) 10%

D) 15%

Answer: A

21. 15 articles CP = 12 SP at 25% profit. For 40% profit, articles:

A) 9

B) 10

C) 11

D) 12

Answer: B

22. Gain 25% on SP, loss 20% on CP. Find %:

A) 20%

B) 25%

C) 30%

D) 40%

Answer: A

23. Marked Rs. 1500, 30% discount, then 10% further, 15% profit. CP:

A) Rs. 900

B) Rs. 975

C) Rs. 1050

D) Rs. 1125

Answer: B

24. False weight 900g=1kg, cost Rs. 10/kg, sell Rs. 12/kg. Profit:

A) 30%

B) 33 1/3%

C) 40%

D) 50%

Answer: C

25. Two sales: one 30% profit Rs. 300 CP, one 20% loss Rs. 400 CP. Net %:

A) 2% profit

B) 2% loss

C) 4% profit

D) 4% loss

Answer: B

26. To break even after 20% tax on SP, profit before tax:

A) 20%

B) 25%

C) 30%

D) 33 1/3%

Answer: B

27. Bulk 10 for Rs. 1, sell 7 for Rs. 1 with 5% overhead. Profit:

A) 35%

B) 40%

C) 42 6/7%

D) 50%

Answer: C

28. SP same for two, profits 10% and 30%. CPs ratio:

A) 3:2

B) 7:6

C) 4:3

D) 5:4

Answer: B

29. Successive 20% loss and 25% profit. Net:

A) 0%

B) 5% loss

C) 5% profit

D) 10% loss

Answer: B

30. CP Rs. 6000, 40% profit after 12% GST on SP. SP:

A) Rs. 7500

B) Rs. 7878.79

C) Rs. 8000

D) Rs. 8400

Answer: B

31. If SP trebled, profit 5 times. Original profit:

A) 50%

B) 60%

C) 66 2/3%

D) 75%

Answer: C

32. Profit 50% on CP Rs. 800. If SP fixed, CP to 60% profit:

A) Rs. 500

B) Rs. 533 1/3

C) Rs. 600

D) Rs. 666 2/3

Answer: A

33. 20 kg mixture CP Rs. 400/kg, sold Rs. 500/kg after 10% waste. Profit:

A) 20%

B) 22.5%

C) 25%

D) 30%

Answer: C

34. Marked Rs. 2000, discount to sell at CP Rs. 1600 for 25% profit. Discount %:

A) 20%

B) 25%

C) 30%

D) 35%

Answer: A

35. Three items CP equal, sold at SP with profits 10%, 20%, 30%. Average profit:

A) 18%

B) 20%

C) 22%

D) 25%

Answer: B

36. CP of 40 = SP of 32 at 25% profit. For 50%, articles:

A) 24

B) 25

C) 26

D) 28

Answer: A

37. Gain 30% on SP, CP 70% SP. Profit on CP:

A) 30%

B) 42.86%

C) 50%

D) 100%

Answer: D

38. Successive discounts 15%, 25%, 10%. Single equivalent:

A) 40%

B) 43.25%

C) 45%

D) 49.375%

Answer: D

39. CP Rs. 2500, SP for 20% profit after 5% rebate on SP:

A) Rs. 3000

B) Rs. 3157.89

C) Rs. 3250

D) Rs. 3500

Answer: B

40. False weight 750g=1kg, CP Rs. 20/kg, SP Rs. 30/kg. True profit:

A) 50%

B) 60%

C) 80%

D) 100%

Answer: B

41. Two deals: 25% profit on Rs. 2000, 15% loss on Rs. 3000. Net % on total CP:

A) 1% profit

B) 1% loss

C) 2% profit

D) 2% loss

Answer: B

42. To gain 25% after 8% tax, marked price if CP Rs. 1000:

A) Rs. 1250

B) Rs. 1366.67

C) Rs. 1400

D) Rs. 1500

Answer: B

43. CP 30 articles = SP 24 at 25% profit. For 40% profit, articles?

A) 18

B) 20

C) 21

D) 22

Answer: A

44. SP tripled, profit 6 times. Original profit %?

A) 50%

B) 66.67%

C) 75%

D) 100%

Answer: B

45. Original profit 80%, CP up 40%, SP same. New profit % SP?

A) 30%

B) 36%

C) 42%

D) 48%

Answer: A

46. Bought 7 for Rs. 1, sold 5 for Rs. 1 with 10% cost. Profit %?

A) 25%

B) 30%

C) 35%

D) 40%

Answer: C

47. Profit 25% CP, 20% SP. Profit %?

A) 10%

B) 12%

C) 15%

D) 18%

Answer: B

48. Marked Rs. 1500, discounts 25% 15%, sold 25% profit. CP?

A) Rs. 750

B) Rs. 825

C) Rs. 900

D) Rs. 975

Answer: B

49. CP Rs. 6000, 35% profit after 20% expense SP. SP?

A) Rs. 7500

B) Rs. 8250

C) Rs. 9000

D) Rs. 9750

Answer: A

50. False weight 700g=1kg, sell 30% profit false. True profit?

A) 50%

B) 60%

C) 70%

D) 80%

Answer: C

=== TOPIC: ratio proportion, LEVEL: easy ===

1. The ratio of 18 to 24 is:

A) 2:3

B) 3:4

C) 4:5

D) 5:6

Answer: B

2. If a:b = 5:3, what is the value of a when b = 12?

A) 15

B) 18

C) 20

D) 25

Answer: C

3. The ratio of boys to girls in a class is 4:5. If there are 20 boys, how many girls are there?

A) 22

B) 24

C) 25

D) 28

Answer: C

4. If 2:3 :: x:9, what is the value of x?

A) 4

B) 5

C) 6

D) 7

Answer: D

5. The ratio of 50 paise to 2 rupees is:

A) 1:4

B) 2:5

C) 3:8

D) 4:9

Answer: A

6. If a:b = 3:2, what is the value of 2a:b?

A) 3:2

B) 6:2

C) 3:4

D) 6:4

Answer: B

7. The ratio of two numbers is 7:4. If the smaller number is 16, what is the larger number?

A) 24

B) 28

C) 32

D) 36

Answer: B

8. If 5:x :: 10:8, what is the value of x?

A) 4

B) 5

C) 6

D) 7

Answer: A

9. The ratio of pens to pencils is 2:3. If there are 12 pens, how many pencils are there?

A) 15

B) 18

C) 21

D) 24

Answer: B

10. The fourth proportional to 4, 6, 8 is:

A) 10

B) 12

C) 14

D) 16

Answer: B

11. If a:b = 9:5, what is the value of b when a = 27?

A) 15

B) 18

C) 20

D) 22

Answer: A

12. The ratio of 1 hour to 45 minutes is:

A) 3:4

B) 4:3

C) 5:3

D) 3:5

Answer: B

13. If 3:5 :: x:20, what is the value of x?

A) 12

B) 13

C) 14

D) 15

Answer: A

14. The ratio of two quantities is 8:3. If the larger quantity is 24, what is the smaller quantity?

A) 8

B) 9

C) 10

D) 11

Answer: B

15. The mean proportional between 16 and 25 is:

A) 18

B) 20

C) 22

D) 24

Answer: B

16. If a:b = 2:3, what is the value of a + b:b?

A) 5:3

B) 3:2

C) 5:2

D) 3:5

Answer: A

17. The ratio of 75 paise to 3 rupees is:

A) 1:4

B) 2:5

C) 3:12

D) 4:15

Answer: A

18. If 6:x :: 9:12, what is the value of x?

A) 6

B) 7

C) 8

D) 9

Answer: D

19. The ratio of apples to oranges is 5:2. If there are 10 apples, how many oranges are there?

A) 4

B) 5

C) 6

D) 7

Answer: A

20. The third proportional to 4 and 6 is:

A) 8

B) 9

C) 10

D) 12

Answer: D

21. If a:b = 7:4, what is the value of a when b = 16?

A) 24

B) 26

C) 28

D) 30

Answer: C

22. The ratio of 2 kg to 500 g is:

A) 4:1

B) 3:1

C) 2:1

D) 1:2

Answer: A

23. If 5:2 :: x:8, what is the value of x?

A) 18

B) 19

C) 20

D) 21

Answer: D

24. The ratio of two numbers is 3:5. If the larger number is 25, what is the smaller number?

A) 12

B) 13

C) 14

D) 15

Answer: D

25. The duplicate ratio of 2:3 is:

A) 4:6

B) 4:9

C) 6:9

D) 8:12

Answer: B

26. If a:b = 4:7, what is the value of b when a = 12?

A) 18

B) 20

C) 21

D) 22

Answer: C

27. The ratio of 30 minutes to 1 hour is:

A) 1:2

B) 2:3

C) 3:4

D) 4:5

Answer: B

28. If 8:3 :: x:6, what is the value of x?

A) 14

B) 15

C) 16

D) 17

Answer: D

29. The ratio of books to notebooks is 5:4. If there are 20 books, how many notebooks are there?

A) 12

B) 14

C) 16

D) 18

Answer: D

30. The fourth proportional to 3, 9, 12 is:

A) 27

B) 28

C) 29

D) 36

Answer: D

31. If a:b = 6:5, what is the value of a when b = 25?

A) 28

B) 30

C) 32

D) 34

Answer: B

32. The ratio of 4 liters to 1000 ml is:

A) 4:1

B) 3:1

C) 2:1

D) 1:2

Answer: A

33. If 7:x :: 14:10, what is the value of x?

A) 4

B) 5

C) 6

D) 7

Answer: C

34. The ratio of two numbers is 9:2. If the smaller number is 8, what is the larger number?

A) 34

B) 35

C) 36

D) 37

Answer: C

35. The mean proportional between 9 and 16 is:

A) 12

B) 13

C) 14

D) 15

Answer: A

36. If a:b = 3:4, what is the value of a + b:b?

A) 7:4

B) 4:3

C) 7:3

D) 3:7

Answer: A

37. The ratio of 50 paise to 5 rupees is:

A) 1:10

B) 2:10

C) 3:10

D) 4:10

Answer: A

38. If 4:5 :: x:15, what is the value of x?

A) 10

B) 11

C) 12

D) 13

Answer: C

39. The ratio of chairs to tables is 6:5. If there are 30 chairs, how many tables are there?

A) 22

B) 24

C) 25

D) 26

Answer: C

40. The third proportional to 5 and 10 is:

A) 15

B) 18

C) 20

D) 22

Answer: C

41. If a:b = 8:3, what is the value of b when a = 24?

A) 9

B) 10

C) 11

D) 12

Answer: A

42. The ratio of 3 meters to 150 cm is:

A) 2:1

B) 3:1

C) 1:2

D) 1:3

Answer: A

43. If 9:4 :: x:12, what is the value of x?

A) 25

B) 26

C) 27

D) 28

Answer: D

44. The ratio of two numbers is 5:6. If the larger number is 30, what is the smaller number?

A) 24

B) 25

C) 26

D) 27

Answer: B

45. The duplicate ratio of 3:4 is:

A) 6:8

B) 9:12

C) 9:16

D) 12:16

Answer: B

46. If a:b = 2:5, what is the value of a when b = 15?

A) 6

B) 7

C) 8

D) 9

Answer: A

47. The ratio of 2 hours to 30 minutes is:

A) 4:1

B) 3:1

C) 2:1

D) 1:2

Answer: A

48. If 6:7 :: x:14, what is the value of x?

A) 10

B) 11

C) 12

D) 13

Answer: D

49. The ratio of students to teachers is 25:1. If there are 500 students, how many teachers are there?

A) 18

B) 20

C) 22

D) 25

Answer: B

50. Ratio 10:15 simplify to?

A) 2:3

B) 3:4

C) 4:5

D) 5:6

Answer: A

=== TOPIC: ratio proportion, LEVEL: medium ===

1. A, B, C invest Rs. 1000, Rs. 1500, Rs. 2000 for 4, 6, 8 months. Profit Rs. 370, A's share?

A) Rs. 100

B) Rs. 110

C) Rs. 120

D) Rs. 130

Answer: A

2. Ratio ages A:B 5:4. 5 years ago 3:2. A's age now?

A) 20

B) 25

C) 30

D) 35

Answer: B

3. Numbers ratio 4:7. 5 added each, 3:4. Larger number?

A) 28

B) 32

C) 35

D) 40

Answer: C

4. A:B:C Rs. 200, 250, 300. A 3 months, B 6, C 9. Profit Rs. 330, B's share?

A) Rs. 110

B) Rs. 120

C) Rs. 130

D) Rs. 140

Answer: B

5. Speeds ratio 5:6. First 1 hr less for 300 km. First speed?

A) 75 km/h

B) 80 km/h

C) 85 km/h

D) 90 km/h

Answer: A

6. Divide Rs. 840 in 2:3:5.

A) 168, 252, 420

B) 180, 270, 390

C) 200, 300, 340

D) 210, 315, 315

Answer: A

7. (a+b):(a-b)=6:4, (a+b):(2a-b)?

A) 3:4

B) 3:5

C) 6:7

D) 6:8

Answer: A

8. Incomes A:B 4:3, expenses 5:4. Save Rs. 3000 each, A's income?

A) Rs. 12000

B) Rs. 15000

C) Rs. 18000

D) Rs. 21000

Answer: B

9. Boat still 10 km/h, stream 2 km/h. Time 20 km up down ratio?

A) 3:2

B) 2:3

C) 4:3

D) 5:4

Answer: A

10. GP numbers sum 21, product 216. Middle?

A) 6

B) 7

C) 8

D) 9

Answer: B

11. Ages ratio 7:5. Diff 6 years, A's age?

A) 21

B) 24

C) 27

D) 30

Answer: A

12. Rs. 450 divided A half B's, twice C's. C's share?

A) Rs. 90

B) Rs. 100

C) Rs. 110

D) Rs. 120

Answer: A

13. p:q=3:4, q:r=5:6, p:q:r?

A) 15:20:24

B) 15:20:25

C) 15:25:30

D) 20:25:30

Answer: A

14. Average A B 25, ratio 4:3. B's age 5 yrs ago?

A) 15

B) 18

C) 20

D) 22

Answer: A

15. Alloys Cu:Zn 7:3, 5:5. Mix for 3:2?

A) 1:2

B) 2:1

C) 3:1

D) 1:3

Answer: B

16. Train pole 18 sec, platform 270m 30 sec. Train length?

A) 90m

B) 108m

C) 120m

D) 135m

Answer: A

17. a:b=5:6, b:c=7:8, a:c?

A) 35:48

B) 35:42

C) 40:48

D) 42:48

Answer: A

18. Salaries ratio 3:4:5, increase 15%,20%,25%. New?

A) 345:480:625

B) 360:480:625

C) 345:500:625

D) 360:500:625

Answer: B

19. A B Rs. 1540. 1/5 A = 1/7 B, A's share?

A) Rs. 700

B) Rs. 720

C) Rs. 740

D) Rs. 760

Answer: A

20. Speeds 3:4:5, time 120 km ratio?

A) 5:3:2

B) 4:3:2

C) 3:2:1

D) 6:4:3

Answer: A

21. Divide 480 in 1/3:1/4:1/6.

A) 120:160:200

B) 160:120:200

C) 120:200:160

D) 200:120:160

Answer: C

22. (x+y):(x-y)=8:2, x:y?

A) 5:3

B) 5:2

C) 4:3

D) 3:2

Answer: A

23. A beats B 30m, B C 30m. A beats C?

A) 51m

B) 54m

C) 57m

D) 60m

Answer: B

24. Father son ratio 7:2. 7 yrs ago 5:1. Son age?

A) 7

B) 8

C) 9

D) 10

Answer: A

25. Partners 4:3:2. A Rs. 4000 5m, B 5000 7m, C 6000 8m. A share Rs. 720?

A) Rs. 200

B) Rs. 240

C) Rs. 280

D) Rs. 320

Answer: B

26. a:b=5:7, b:c=3:4, a:b:c?

A) 15:21:28

B) 15:21:24

C) 20:28:24

D) 25:35:28

Answer: A

27. Students ratio 4:5:6. 15 added each, 5:6:7. Total?

A) 180

B) 210

C) 240

D) 270

Answer: B

28. Rs. 950 A:B:C:D 4:5:3:2. B's share?

A) Rs. 250

B) Rs. 275

C) Rs. 300

D) Rs. 325

Answer: A

29. Distances 3:4, times 2:3. Speeds ratio?

A) 9:8

B) 8:9

C) 3:4

D) 4:3

Answer: A

30. p/q=5/6, (p2-q2)/(p2+q2)?

A) 24/61

B) 25/61

C) 30/61

D) 36/61

Answer: A

31. A B 8 days, B C 12 days, A C 10 days. B alone?

A) 15

B) 16

C) 18

D) 20

Answer: B

32. Incomes 7:8, expenses 5:6. Savings ratio?

A) 9:14

B) 14:9

C) 7:8

D) 8:7

Answer: A

33. 5A=6B=7C, A:B:C?

A) 42:35:30

B) 42:30:35

C) 35:30:42

D) 30:35:42

Answer: A

34. Boat down 40km 4h, up 24km 3h. Still speed?

A) 11 km/h

B) 12 km/h

C) 13 km/h

D) 14 km/h

Answer: B

35. Ages ratio 5:3. Diff 10 yrs, older age?

A) 25

B) 30

C) 35

D) 40

Answer: A

36. Divide Rs. 1260 in 1/2:1/3:1/5.

A) 420:280:140

B) 280:420:140

C) 420:140:280

D) 140:420:280

Answer: A

37. A:B 3:5, after 4 yrs 4:6. A now?

A) 12

B) 15

C) 18

D) 21

Answer: C

38. Partners Rs. 6000,6000,12000. Time 4,6,3m. Profit Rs. 540, C share?

A) Rs. 180

B) Rs. 200

C) Rs. 220

D) Rs. 240

Answer: A

39. p:q=2:5, q:r=3:4, p:r?

A) 3:10

B) 6:20

C) 2:10

D) 5:12

Answer: A

40. Numbers ratio 5:8. Sum 260, product?

A) 900

B) 1000

C) 1100

D) 1200

Answer: B

41. Boat still 15 km/h, stream 3. Down 30km time?

A) 1.5h

B) 2h

C) 2.5h

D) 3h

Answer: A

42. (a-b):(a+b)=1:3, a/b?

A) 2

B) 3

C) 4

D) 5

Answer: A

43. A beats B 50m, B C 60m. A C?

A) 93m

B) 96m

C) 99m

D) 102m

Answer: B

44. Father son 8:3. 8 yrs ago 6:1. Son now?

A) 9

B) 12

C) 15

D) 18

Answer: B

45. Ratio 2:3:5. A Rs. 5000 6m, B 6000 8m, C 7000 10m. A profit?

A) Rs. 300

B) Rs. 350

C) Rs. 400

D) Rs. 450

Answer: C

46. a:b=4:5, b:c=6:7, a:b:c?

A) 24:30:35

B) 24:30:42

C) 30:24:35

D) 30:35:42

Answer: A

47. Classes 5:6:7 students. 10 added, 6:7:8. Total?

A) 210

B) 240

C) 270

D) 300

Answer: A

48. Rs. 1260 3:4:5:6. D's share?

A) Rs. 360

B) Rs. 378

C) Rs. 396

D) Rs. 414

Answer: A

49. Dist 4:5, time 5:4. Speed ratio?

A) 4:5

B) 5:4

C) 20:25

D) 25:20

Answer: A

50. p/q=3/4, (p2+q2)/(p-q)?

A) 17/5

B) 17/7

C) 17/8

D) 17/10

Answer: A

1. A, B, and C invest Rs. 2000, Rs. 3000, and Rs. 4000 respectively for 6 months, 8 months, and 9 months. If the total profit is Rs. 740, what is A's share?

A) Rs. 100

B) Rs. 120

C) Rs. 140

D) Rs. 160

Answer: A

2. The ratio of ages of A and B is 4:5. Eight years ago, it was 3:4. What will be the ratio after 8 years?

A) 5:6

B) 6:7

C) 7:8

D) 8:9

Answer: B

3. Two numbers are in the ratio 3:5. If 9 is added to each, the ratio becomes 2:3. What is the larger number?

A) 25

B) 30

C) 35

D) 40

Answer: C

4. A, B, C enter into partnership with Rs. 120, Rs. 150, Rs. 180. A invests for 4 months, B for 8, C for 12. If total profit Rs. 396, what is B's share?

A) Rs. 90

B) Rs. 100

C) Rs. 110

D) Rs. 120

Answer: A

5. The ratio of speeds of two trains is 3:4. If the first takes 2 hours less than the second to cover 240 km, what is the speed of the first train?

A) 60 km/h

B) 72 km/h

C) 80 km/h

D) 90 km/h

Answer: B

6. Divide Rs. 1162 in the ratio 3:5:7:9.

A) 102, 170, 238, 306

B) 102, 170, 238, 352

C) 102, 170, 306, 384

D) 102, 238, 306, 384

Answer: A

7. If (a + b):(a - b) = 5:3, what is (a + b):(2a + b)?

A) 5:8

B) 5:9

C) 5:10

D) 5:11

Answer: A

8. The incomes of A and B are in ratio 3:2. Expenditures 4:3. If each saves Rs. 2000, what is A's income?

A) Rs. 12,000

B) Rs. 14,000

C) Rs. 16,000

D) Rs. 18,000

Answer: A

9. A boat's speed in still water is 12 km/h, stream 3 km/h. Ratio of time upstream and downstream for 24 km each is:

A) 3:2

B) 2:3

C) 5:3

D) 3:5

Answer: A

10. Three numbers are in GP. Their sum is 38, product 1728. What is the middle number?

A) 12

B) 16

C) 18

D) 20

Answer: A

11. The ratio of present ages of A and B is 5:3. Five years ago, it was 3:2. What is A's present age?

A) 15

B) 20

C) 25

D) 30

Answer: C

12. A sum of Rs. 650 is divided among A, B, C such that A's share is half of B's, and twice of C's. What is C's share?

A) Rs. 130

B) Rs. 150

C) Rs. 170

D) Rs. 190

Answer: A

13. If p:q = 2:3, q:r = 4:5, find p:q:r.

A) 8:12:15

B) 8:12:20

C) 8:16:20

D) 16:12:15

Answer: A

14. The average age of A and B is 20. Ratio of ages 3:2. What is B's age 10 years ago?

A) 8

B) 10

C) 12

D) 14

Answer: A

15. Two alloys have copper and zinc in ratio 5:3 and 3:7. In what ratio should they be mixed to get 13:7?

A) 3:4

B) 4:3

C) 5:3

D) 3:5

Answer: B

16. A train passes a pole in 15 seconds, a platform 200 m long in 25 seconds. What is the length of the train?

A) 100 m

B) 150 m

C) 200 m

D) 250 m

Answer: A

17. If a:b = 4:5, b:c = 3:2, find a:c.

A) 2:1

B) 5:3

C) 6:5

D) 12:5

Answer: D

18. The ratio of salaries of A, B, C is 2:3:5. If increased by 20%, 10%, 30%, new ratio is:

A) 12:18:30

B) 12:18:35

C) 12:20:35

D) 12:20:30

Answer: B

19. A and B together have Rs. 1210. If 1/8 of A's is equal to 1/6 of B's, what is A's share?

A) Rs. 530

B) Rs. 540

C) Rs. 550

D) Rs. 560

Answer: B

20. The speeds of three cars are in ratio 2:3:4. Time to cover 60 km is in ratio:

A) 6:4:3

B) 4:3:2

C) 3:2:1

D) 12:8:6

Answer: A

21. Divide 360 in ratio 1/2 : 1/3 : 1/4.

A) 60:90:120

B) 60:120:180

C) 90:120:150

D) 120:90:150

Answer: B

22. If (x + y):(x - y) = 7:3, what is x:y?

A) 5:2

B) 5:3

C) 4:3

D) 3:2

Answer: A

23. A, B, C run a race. A beats B by 20 m, B beats C by 20 m. By how many meters does A beat C?

A) 36 m

B) 40 m

C) 44 m

D) 48 m

Answer: C

24. The ratio of present ages of father and son is 10:3. It was 5:1 ten years ago. What is son's age?

A) 10

B) 12

C) 14

D) 16

Answer: B

25. Three partners share profit in ratio 3:2:1. A invests Rs. 3000 for 6 months, B Rs. 4000 for 8 months, C Rs. 5000 for 10 months. Share of A?

A) Rs. 600

B) Rs. 700

C) Rs. 800

D) Rs. 900

Answer: C

26. If a:b = 3:4, b:c = 5:6, find a:b:c.

A) 15:20:24

B) 15:20:25

C) 15:25:30

D) 20:25:30

Answer: A

27. The number of students in three classes are in the ratio 3:4:5. If 20 are increased in each, ratio becomes 4:5:6. Total students?

A) 120

B) 140

C) 160

D) 180

Answer: A

28. A sum of Rs. 800 is divided among A, B, C, D in proportion to 3:2:5:4. What is B's share?

A) Rs. 120

B) Rs. 140

C) Rs. 160

D) Rs. 180

Answer: A

29. The ratio of distances traveled by two cars is 2:3, times 3:4. Ratio of speeds?

A) 8:9

B) 9:8

C) 2:3

D) 3:2

Answer: A

30. If $p/q = 4/5$, then $(p^2 + q^2)/(p^2 - q^2) = $?

A) 41/9

B) 41/16

C) 41/25

D) 41/36

Answer: C

31. A and B complete a work in 12 days, B and C in 15 days, A and C in 20 days. Days for A alone?

A) 10

B) 12

C) 15

D) 20

Answer: A

32. The ratio of incomes of two persons is 5:7, expenditures 4:5. Ratio of savings?

A) 16:21

B) 21:16

C) 5:7

D) 7:5

Answer: A

33. If 4A = 5B = 6C, what is A:B:C?

A) 30:24:20

B) 30:25:20

C) 25:20:24

D) 24:20:25

Answer: A

34. A boat goes 30 km downstream in 2 hours, 18 km upstream in 3 hours. Speed in still water?

A) 10 km/h

B) 12 km/h

C) 14 km/h

D) 16 km/h

Answer: A

35. The ages of A and B are in ratio 6:5. If difference is 6 years, what is A's age?

A) 18

B) 20

C) 24

D) 30

Answer: D

36. Divide Rs. 3810 in ratio 1/3 : 1/4 : 1/5.

A) 630:760:950

B) 760:630:950

C) 630:950:760

D) 950:760:630

Answer: C

37. Ratio A:B 6:7. 10 yrs later 8:9. A now?

A) 30

B) 36

C) 42

D) 48

Answer: B

38. Partners Rs. 8000,10000,12000. Time 5,4,6m. Profit Rs. 660, B share?

A) Rs. 220

B) Rs. 240

C) Rs. 260

D) Rs. 280

Answer: A

39. p:q=5:8, q:r=4:7, p:r?

A) 5:7

B) 20:56

C) 5:14

D) 20:28

Answer: A

40. Numbers 7:9. Sum 128, LCM?

A) 448

B) 504

C) 560

D) 616

Answer: B

41. Boat still 14 km/h, stream 4. Up 28km time?

A) 2h

B) 2.5h

C) 3h

D) 3.5h

Answer: C

42. (a-b):(b-c)=2:3, a:c=5:3. b?

A) 4

B) 5

C) 6

D) 7

Answer: A

43. A beats B 40m, B C 50m. A C?

A) 76m

B) 80m

C) 84m

D) 88m

Answer: C

44. Father son 9:4. 9 yrs ago 5:2. Son now?

A) 8

B) 12

C) 16

D) 20

Answer: C

45. Ratio 5:4:3. A Rs. 10000 4m, B 12000 6m, C 15000 8m. A profit?

A) Rs. 400

B) Rs. 450

C) Rs. 500

D) Rs. 550

Answer: B

46. a:b=7:8, b:c=9:10, a:b:c?

A) 63:72:80

B) 63:72:90

C) 72:63:80

D) 72:80:90

Answer: A

47. Sections 6:7:8. 20 added, 7:8:9. Total?

A) 336

B) 384

C) 432

D) 480

Answer: A

48. Rs. 1890 5:6:7:8. C's share?

A) Rs. 540

B) Rs. 567

C) Rs. 594

D) Rs. 621

Answer: A

49. Dist 5:6, time 6:5. Speed ratio?

A) 5:6

B) 6:5

C) 30:36

D) 36:30

Answer: A

50. p/q=6/7, (p2-q2)/(p+q)?

A) 72/13

B) 72/26

C) 72/39

D) 72/52

Answer: A

=== TOPIC: simple interest, LEVEL: easy ===

1. A sum of Rs. 600 yields Rs. 90 as simple interest at 5% p.a. in how many years?

A) 2

B) 3

C) 4

D) 5

Answer: B

2. What is the simple interest on Rs. 1000 at 4% p.a. for 2 years?

A) Rs. 80

B) Rs. 90

C) Rs. 100

D) Rs. 110

Answer: A

3. A sum of Rs. 5000 amounts to Rs. 5600 in 2 years at simple interest. What is the rate of interest?

A) 4%

B) 5%

C) 6%

D) 7%

Answer: C

4. If the simple interest on Rs. 2000 for 3 years is Rs. 360, what is the rate of interest per annum?

A) 5%

B) 6%

C) 7%

D) 8%

Answer: B

5. A loan of Rs. 800 at 10% p.a. simple interest is taken. How much interest is paid after 5 years?

A) Rs. 400

B) Rs. 450

C) Rs. 500

D) Rs. 550

Answer: A

6. A sum of Rs. 1500 earns Rs. 450 simple interest in 3 years. What is the rate of interest?

A) 8%

B) 9%

C) 10%

D) 11%

Answer: C

7. How long will it take for Rs. 1200 to yield Rs. 240 as simple interest at 5% p.a.?

A) 3 years

B) 4 years

C) 5 years

D) 6 years

Answer: B

8. A sum of Rs. 4000 at 6% p.a. simple interest amounts to Rs. 4720. In how many years?

A) 2

B) 3

C) 4

D) 5

Answer: C

9. If the simple interest on Rs. 2500 for 4 years is Rs. 600, what is the principal if the rate is 6% p.a. for the same time?

A) Rs. 2000

B) Rs. 2250

C) Rs. 2500

D) Rs. 2750

Answer: A

10. A sum of Rs. 3000 at 8% p.a. simple interest yields how much interest in 2 years?

A) Rs. 460

B) Rs. 480

C) Rs. 500

D) Rs. 520

Answer: B

11. What is the principal if the simple interest is Rs. 200 at 5% p.a. for 2 years?

A) Rs. 2000

B) Rs. 2100

C) Rs. 2200

D) Rs. 2300

Answer: A

12. A sum amounts to Rs. 1800 in 3 years at 4% p.a. simple interest. What is the principal?

A) Rs. 1500

B) Rs. 1550

C) Rs. 1600

D) Rs. 1650

Answer: A

13. If Rs. 5000 earns Rs. 1000 simple interest in 4 years, what is the rate of interest?

A) 4%

B) 5%

C) 6%

D) 7%

Answer: B

14. A loan of Rs. 2000 at 7% p.a. simple interest yields how much interest in 3 years?

A) Rs. 400

B) Rs. 420

C) Rs. 440

D) Rs. 460

Answer: B

15. How long will it take for Rs. 1000 to yield Rs. 150 as simple interest at 3% p.a.?

A) 4 years

B) 5 years

C) 6 years

D) 7 years

Answer: C

16. A sum of Rs. 6000 at 5% p.a. simple interest amounts to Rs. 6900. In how many years?

A) 2

B) 3

C) 4

D) 5

Answer: C

17. If the simple interest on Rs. 1500 for 2 years is Rs. 240, what is the rate of interest?

A) 6%

B) 7%

C) 8%

D) 9%

Answer: C

18. What is the principal if the simple interest is Rs. 360 at 6% p.a. for 3 years?

A) Rs. 1800

B) Rs. 1900

C) Rs. 2000

D) Rs. 2100

Answer: C

19. A sum of Rs. 2500 earns Rs. 500 simple interest in 5 years. What is the rate of interest?

A) 3%

B) 4%

C) 5%

D) 6%

Answer: B

20. A loan of Rs. 4000 at 10% p.a. simple interest yields how much interest in 4 years?

A) Rs. 1500

B) Rs. 1600

C) Rs. 1700

D) Rs. 1800

Answer: B

21. How long will it take for Rs. 800 to yield Rs. 120 as simple interest at 5% p.a.?

A) 2 years

B) 3 years

C) 4 years

D) 5 years

Answer: C

22. A sum of Rs. 5000 amounts to Rs. 5900 in 3 years at simple interest. What is the rate of interest?

A) 5%

B) 6%

C) 7%

D) 8%

Answer: B

23. If the simple interest on Rs. 3000 for 2 years is Rs. 480, what is the rate of interest?

A) 7%

B) 8%

C) 9%

D) 10%

Answer: B

24. What is the principal if the simple interest is Rs. 450 at 9% p.a. for 2 years?

A) Rs. 2500

B) Rs. 2600

C) Rs. 2700

D) Rs. 2800

Answer: A

25. A sum of Rs. 2000 at 4% p.a. simple interest yields how much interest in 5 years?

A) Rs. 400

B) Rs. 420

C) Rs. 440

D) Rs. 460

Answer: A

26. A sum amounts to Rs. 2400 in 4 years at 5% p.a. simple interest. What is the principal?

A) Rs. 1800

B) Rs. 1900

C) Rs. 2000

D) Rs. 2100

Answer: C

27. If Rs. 4000 earns Rs. 800 simple interest in 5 years, what is the rate of interest?

A) 4%

B) 5%

C) 6%

D) 7%

Answer: A

28. A loan of Rs. 1000 at 8% p.a. simple interest yields how much interest in 3 years?

A) Rs. 220

B) Rs. 240

C) Rs. 260

D) Rs. 280

Answer: C

29. How long will it take for Rs. 1500 to yield Rs. 360 as simple interest at 6% p.a.?

A) 3 years

B) 4 years

C) 5 years

D) 6 years

Answer: A

30. A sum of Rs. 7000 at 7% p.a. simple interest amounts to Rs. 8470. In how many years?

A) 2

B) 3

C) 4

D) 5

Answer: A

31. If the simple interest on Rs. 2000 for 4 years is Rs. 640, what is the rate of interest?

A) 8%

B) 9%

C) 10%

D) 11%

Answer: A

32. What is the principal if the simple interest is Rs. 300 at 5% p.a. for 3 years?

A) Rs. 1800

B) Rs. 1900

C) Rs. 2000

D) Rs. 2100

Answer: C

33. A sum of Rs. 3000 earns Rs. 720 simple interest in 3 years. What is the rate of interest?

A) 7%

B) 8%

C) 9%

D) 10%

Answer: A

34. A loan of Rs. 5000 at 6% p.a. simple interest yields how much interest in 2 years?

A) Rs. 600

B) Rs. 620

C) Rs. 640

D) Rs. 660

Answer: A

35. How long will it take for Rs. 2500 to yield Rs. 750 as simple interest at 10% p.a.?

A) 2 years

B) 3 years

C) 4 years

D) 5 years

Answer: C

36. A sum amounts to Rs. 3600 in 5 years at 4% p.a. simple interest. What is the principal?

A) Rs. 2800

B) Rs. 2900

C) Rs. 3000

D) Rs. 3100

Answer: C

37. If Rs. 6000 earns Rs. 1440 simple interest in 4 years, what is the rate of interest?

A) 5%

B) 6%

C) 7%

D) 8%

Answer: B

38. A sum of Rs. 4000 at 5% p.a. simple interest yields Rs. 800 in how many years?

A) 3

B) 4

C) 5

D) 6

Answer: B

39. What is the simple interest on Rs. 12000 at 7% p.a. for 18 months?

A) Rs. 1260

B) Rs. 1305

C) Rs. 1350

D) Rs. 1395

Answer: A

40. A loan of Rs. 2500 at 8% p.a. simple interest is repaid after 2.5 years. What is the total amount paid?

A) Rs. 3000

B) Rs. 3050

C) Rs. 3100

D) Rs. 3150

Answer: A

41. If the simple interest on a sum is Rs. 240 at 4% p.a. for 5 years, what is the principal?

A) Rs. 1200

B) Rs. 1250

C) Rs. 1300

D) Rs. 1350

Answer: A

42. A sum amounts to Rs. 4500 in 3 years at simple interest. If the principal is Rs. 4000, what is the rate?

A) 5%

B) 6%

C) 7%

D) 8%

Answer: C

43. How long will Rs. 5000 take to yield Rs. 900 simple interest at 6% p.a.?

A) 2 years

B) 3 years

C) 4 years

D) 5 years

Answer: B

44. The simple interest on Rs. 8000 for 9 months at 12% p.a. is:

A) Rs. 720

B) Rs. 750

C) Rs. 780

D) Rs. 810

Answer: A

45. If a sum doubles in 10 years at simple interest, what is the rate per annum?

A) 8%

B) 9%

C) 10%

D) 11%

Answer: C

46. A person borrows Rs. 5000 at 10% p.a. simple interest. How much does he pay after 1 year 6 months?

A) Rs. 5625

B) Rs. 5750

C) Rs. 5875

D) Rs. 6000

Answer: B

47. The principal from which Rs. 300 simple interest is obtained in 4 months at 9% p.a. is:

A) Rs. 10,000

B) Rs. 10,500

C) Rs. 11,000

D) Rs. 11,500

Answer: A

48. If Rs. 3600 yields Rs. 540 simple interest in 18 months, what is the rate?

A) 8%

B) 9%

C) 10%

D) 11%

Answer: C

49. What is SI on Rs. 4000 at 5% for 3 years?

A) Rs. 600

B) Rs. 550

C) Rs. 650

D) Rs. 700

Answer: A

50. Sum Rs. 2000 at 6% becomes Rs. 2600 in? years

A) 5

B) 6

C) 7

D) 8

Answer: A

===TOPIC: simple interest, LEVEL: medium===

1. A sum of Rs. 5,000 is lent at 4% p.a. simple interest. What is the interest after 2 years?

A) Rs. 400

B) Rs. 500

C) Rs. 600

D) Rs. 700

ANSWER: A

2. If the simple interest on a certain sum for 3 years at 5% p.a. is Rs. 300, what is the principal?

A) Rs. 2,000

B) Rs. 2,500

C) Rs. 3,000

D) Rs. 3,500

ANSWER: A

3. A man borrows Rs. 10,000 at 6% p.a. simple interest for 2 years. What is the total amount to be repaid?

A) Rs. 11,200

B) Rs. 11,500

C) Rs. 12,000

D) Rs. 12,200

ANSWER: A

4. The simple interest on Rs. 4,000 for 5 years at r% p.a. is Rs. 1,000. What is r?

A) 4%

B) 5%

C) 6%

D) 7%

ANSWER: B

5. A sum amounts to Rs. 1,200 in 2 years at simple interest. If the principal is Rs. 1,000, what is the rate?

A) 8%

B) 10%

C) 12%

D) 15%

ANSWER: B

6. Rs. 6,000 is invested at 7% p.a. simple interest. What is the amount after 3 years?

A) Rs. 6,800

B) Rs. 7,000

C) Rs. 7,200

D) Rs. 7,400

ANSWER: C

7. If simple interest for 4 years at 3% p.a. is Rs. 240, what is the principal?

A) Rs. 1,500

B) Rs. 2,000

C) Rs. 2,500

D) Rs. 3,000

ANSWER: B

8. A loan of Rs. 8,000 at 5% p.a. simple interest is repaid in 2 equal annual installments. What is the interest in the first year?

A) Rs. 200

B) Rs. 300

C) Rs. 400

D) Rs. 500

ANSWER: C

9. The total amount after 3 years on Rs. 5,000 at 4% p.a. simple interest is:

A) Rs. 5,600

B) Rs. 5,800

C) Rs. 6,000

D) Rs. 6,200

ANSWER: A

10. If Rs. 2,000 yields Rs. 300 simple interest in 3 years, what is the annual rate?

A) 4%

B) 5%

C) 6%

D) 7%

ANSWER: B

11. A sum of Rs. 9,000 at 8% p.a. simple interest becomes Rs. 10,800 in t years. What is t?

A) 1

B) 2

C) 3

D) 4

ANSWER: B

12. Simple interest on Rs. 7,500 for 2 years at 6% p.a. is:

A) Rs. 750

B) Rs. 900

C) Rs. 1,050

D) Rs. 1,200

ANSWER: B

13. A person invests Rs. 12,000 part at 3% p.a. and the rest at 4% p.a. simple interest for 1 year. Total interest Rs. 420. How much at 3%?

A) Rs. 6,000

B) Rs. 7,000

C) Rs. 8,000

D) Rs. 9,000

ANSWER: A

14. If the principal is Rs. 4,500 and rate is 5% p.a., time for Rs. 450 interest is:

A) 1 year

B) 2 years

C) 3 years

D) 4 years

ANSWER: B

15. Rs. 10,000 at 9% p.a. simple interest for 18 months yields:

A) Rs. 1,200

B) Rs. 1,350

C) Rs. 1,500

D) Rs. 1,650

ANSWER: B

16. A sum of Rs. 3,200 amounts to Rs. 3,800 in 4 years at simple interest. What is the rate?

A) 4.5%

B) 5%

C) 5.5%

D) 6%

ANSWER: A

17. The interest on Rs. 5,500 at 4% p.a. for 2 1/2 years is:

A) Rs. 500

B) Rs. 550

C) Rs. 600

D) Rs. 650

ANSWER: B

18. If simple interest is Rs. 500 on a sum for 5 years, and rate is 5% p.a., principal is:

A) Rs. 2,000

B) Rs. 2,500

C) Rs. 3,000

D) Rs. 3,500

ANSWER: A

19. A man lends Rs. 15,000 at 5% p.a. simple interest for 3 years. Total amount?

A) Rs. 16,500

B) Rs. 17,000

C) Rs. 17,250

D) Rs. 17,500

ANSWER: C

20. Rs. 2,400 yields Rs. 360 interest in 3 years at simple interest. Rate?

A) 4%

B) 5%

C) 6%

D) 7%

ANSWER: B

21. A sum becomes Rs. 1,500 in 2 years at 10% p.a. simple interest. Principal?

A) Rs. 1,200

B) Rs. 1,300

C) Rs. 1,400

D) Rs. 1,500

ANSWER: A

22. Interest on Rs. 6,000 at 7% p.a. for 4 years is:

A) Rs. 1,500

B) Rs. 1,600

C) Rs. 1,680

D) Rs. 1,800

ANSWER: C

23. If Rs. 8,000 at r% p.a. gives Rs. 960 interest in 4 years, r is:

A) 3%

B) 4%

C) 5%

D) 6%

ANSWER: A

24. A loan of Rs. 7,000 at 6% p.a. simple interest for 2 years, amount repaid?

A) Rs. 7,800

B) Rs. 8,000

C) Rs. 8,200

D) Rs. 8,400

ANSWER: D

25. Simple interest on Rs. 4,000 for 9 months at 5% p.a. is:

A) Rs. 150

B) Rs. 175

C) Rs. 200

D) Rs. 225

ANSWER: A

26. A sum of Rs. 11,000 at 4% p.a. simple interest becomes Rs. 12,100 in t years. t?

A) 2

B) 2.5

C) 3

D) 3.5

ANSWER: B

27. Rs. 1,000 at 10% p.a. simple interest for 1 year yields Rs. 100. For 6 months at same rate?

A) Rs. 40

B) Rs. 50

C) Rs. 60

D) Rs. 70

ANSWER: B

28. A person borrows Rs. 20,000 at 7% p.a. simple interest. Interest after 18 months?

A) Rs. 2,000

B) Rs. 2,100

C) Rs. 2,200

D) Rs. 2,300

ANSWER: B

29. If principal Rs. 6,000, rate 8% p.a., time for Rs. 480 interest?

A) 1 year

B) 1.5 years

C) 2 years

D) 2.5 years

ANSWER: A

30. Total amount on Rs. 9,500 at 5% p.a. simple interest after 4 years?

A) Rs. 10,700

B) Rs. 11,000

C) Rs. 11,300

D) Rs. 11,600

ANSWER: C

31. Simple interest on Rs. 2,500 for 3 years at 6% p.a. is:

A) Rs. 400

B) Rs. 450

C) Rs. 500

D) Rs. 550

ANSWER: B

32. A sum amounts to Rs. 1,800 in 3 years at simple interest. If rate is 5% p.a., principal?

A) Rs. 1,500

B) Rs. 1,600

C) Rs. 1,700

D) Rs. 1,800

ANSWER: A

33. Rs. 12,000 at 4.5% p.a. simple interest for 2 years yields:

A) Rs. 900

B) Rs. 1,000

C) Rs. 1,080

D) Rs. 1,200

ANSWER: C

34. If interest Rs. 360 on a sum for 2 years at 6% p.a., principal?

A) Rs. 3,000

B) Rs. 3,500

C) Rs. 4,000

D) Rs. 4,500

ANSWER: A

35. A loan of Rs. 15,000 at 9% p.a. simple interest, amount after 1 year?

A) Rs. 16,200

B) Rs. 16,350

C) Rs. 16,500

D) Rs. 16,650

ANSWER: B

36. Simple interest rate if Rs. 5,000 yields Rs. 600 in 2 years?

A) 5%

B) 6%

C) 7%

D) 8%

ANSWER: B

37. A sum of Rs. 4,800 becomes Rs. 5,400 in t years at 5% p.a. simple interest. t?

A) 3

B) 4

C) 5

D) 6

ANSWER: B

38. Interest on Rs. 10,500 at 3% p.a. for 4 years?

A) Rs. 1,000

B) Rs. 1,200

C) Rs. 1,260

D) Rs. 1,500

ANSWER: C

39. If Rs. 7,000 at 5% p.a. simple interest for 3 1/2 years, interest?

A) Rs. 1,000

B) Rs. 1,100

C) Rs. 1,200

D) Rs. 1,225

ANSWER: D

40. Principal if Rs. 1,200 interest at 4% p.a. for 5 years?

A) Rs. 6,000

B) Rs. 7,000

C) Rs. 8,000

D) Rs. 9,000

ANSWER: A

41. Rs. 3,000 at 8% p.a. simple interest becomes how much in 2 1/2 years?

A) Rs. 3,500

B) Rs. 3,600

C) Rs. 3,700

D) Rs. 3,800

ANSWER: B

42. Time for Rs. 450 interest on Rs. 3,000 at 5% p.a. simple interest?

A) 2 years

B) 3 years

C) 4 years

D) 5 years

ANSWER: B

43. A sum of Rs. 8,500 at 6% p.a. simple interest, amount after 2 years?

A) Rs. 9,300

B) Rs. 9,500

C) Rs. 9,700

D) Rs. 9,900

ANSWER: C

44. Rate if Rs. 2,000 yields Rs. 240 interest in 4 years?

A) 3%

B) 4%

C) 5%

D) 6%

ANSWER: A

45. Total amount on Rs. 14,000 at 7% p.a. simple interest after 3 years?

A) Rs. 15,700

B) Rs. 16,000

C) Rs. 16,300

D) Rs. 16,600

ANSWER: D

46. Simple interest on Rs. 5,600 for 18 months at 5% p.a.?

A) Rs. 400

B) Rs. 420

C) Rs. 440

D) Rs. 460

ANSWER: B

47. If principal Rs. 9,000, interest Rs. 1,080 in 3 years, rate?

A) 3%

B) 4%

C) 5%

D) 6%

ANSWER: D

48. A loan of Rs. 11,000 at 4% p.a. simple interest, amount after 5 years?

A) Rs. 12,200

B) Rs. 12,800

C) Rs. 13,200

D) Rs. 13,800

ANSWER: C

49. Rs. 4,500 yields Rs. 540 interest in 2 years. Rate?

A) 5%

B) 6%

C) 7%

D) 8%

ANSWER: B

50. A sum becomes Rs. 6,600 in 4 years at 5% p.a. simple interest. Principal?

A) Rs. 5,500

B) Rs. 5,600

C) Rs. 5,700

D) Rs. 5,800

ANSWER: A

===TOPIC: simple interest, LEVEL: hard===

1. A sum of Rs. 12,400 is lent at 5% p.a. simple interest. What will be the total amount after 4 years?

A) Rs. 14,000

B) Rs. 14,400

C) Rs. 14,800

D) Rs. 15,200

Answer: B

2. A man invests Rs. 8,000 in two schemes offering 6% and 7% simple interest. If total interest after 2 years is Rs. 1,040, how much was invested at 6%?

A) Rs. 4,000

B) Rs. 4,500

C) Rs. 5,000

D) Rs. 5,500

Answer: A

3. The simple interest on a sum of money for 5 years is Rs. 1,000. If the rate were 1% less, the interest would be Rs. 800. What is the rate?

A) 6%

B) 7%

C) 8%

D) 9%

Answer: A

4. A sum amounts to Rs. 1,560 in 4 years and Rs. 1,740 in 5 years at simple interest. What is the principal?

A) Rs. 1,200

B) Rs. 1,300

C) Rs. 1,400

D) Rs. 1,500

Answer: A

5. A person borrows Rs. 5,000 at 8% p.a. simple interest and Rs. 6,000 at 9% p.a. simple interest. What is the total interest paid after 3 years?

A) Rs. 3,960

B) Rs. 4,050

C) Rs. 4,140

D) Rs. 4,230

Answer: B

6. The rate of interest for which the simple interest on Rs. 1,200 in 2 years is the same as the compound interest on Rs. 1,000 for 2 years at 5% p.a. compounded annually is:

A) 6%

B) 7%

C) 8%

D) 9%

Answer: A

7. A sum of Rs. 4,000 is divided into two parts such that simple interest on one part at 5% p.a. for 2 years and on the other at 6% p.a. for 4 years are equal. What is the smaller part?

A) Rs. 1,500

B) Rs. 1,600

C) Rs. 1,700

D) Rs. 1,800

Answer: A

8. A man lends Rs. 2,500 at 8% p.a. simple interest for 3 years and Rs. 3,000 at 7% p.a. simple interest for 4 years. What is the total interest received?

A) Rs. 1,500

B) Rs. 1,600

C) Rs. 1,700

D) Rs. 1,800

Answer: B

9. If the simple interest on a certain sum for 2 years is Rs. 320 at 4% p.a., what will be the compound interest on the same sum at 4% p.a. for 2 years compounded annually?

A) Rs. 326.40

B) Rs. 332.80

C) Rs. 339.20

D) Rs. 345.60

Answer: A

10. A sum of Rs. 6,500 amounts to Rs. 7,800 in 3 years at simple interest. If the same sum amounts to Rs. 8,300 in t years at the same rate, what is t?

A) 4

B) 5

C) 6

D) 7

Answer: B

11. A person invests Rs. 10,000 part at 4% p.a. and the rest at 5% p.a. simple interest. The total interest after 1 year is Rs. 440. What is the amount invested at 4%?

A) Rs. 4,000

B) Rs. 5,000

C) Rs. 6,000

D) Rs. 7,000

Answer: B

12. The simple interest on Rs. 6,500 for 4 years 8 months at 4% p.a. is:

A) Rs. 1,600

B) Rs. 1,700

C) Rs. 1,800

D) Rs. 1,900

Answer: A

13. A sum of Rs. 800 amounts to Rs. 950 in 3 years at simple interest. If the rate is increased by 25%, what will be the amount after 3 years?

A) Rs. 1,000

B) Rs. 1,050

C) Rs. 1,100

D) Rs. 1,150

Answer: A

14. A man borrows Rs. 20,000 at 5% p.a. simple interest. He pays back Rs. 6,000 after 2 years and the balance after 3 years. What is the total interest paid?

A) Rs. 2,500

B) Rs. 2,750

C) Rs. 3,000

D) Rs. 3,250

Answer: B

15. The simple interest and compound interest on a sum of money for 2 years at 4% p.a. compounded annually are Rs. 400 and Rs. 410 respectively. What is the principal?

A) Rs. 10,000

B) Rs. 10,250

C) Rs. 10,500

D) Rs. 10,750

Answer: A

16. A sum of Rs. 12,000 is lent at 10% p.a. simple interest. What will be the amount after 2 1/2 years?

A) Rs. 15,000

B) Rs. 15,500

C) Rs. 16,000

D) Rs. 16,500

Answer: A

17. If Rs. 3,600 yields Rs. 900 simple interest in 6 months, what is the annual rate?

A) 40%

B) 45%

C) 50%

D) 55%

Answer: C

18. A person takes a loan of Rs. 4,000 at 6% p.a. simple interest. If he repays Rs. 1,000 after 1 year and Rs. 1,500 after 2 years, what is the balance with interest after 3 years?

A) Rs. 2,000

B) Rs. 2,100

C) Rs. 2,200

D) Rs. 2,300

Answer: C

19. The simple interest on a sum of money is Rs. 720 for 2 years and Rs. 1,080 for 3 years. What is the principal?

A) Rs. 12,000

B) Rs. 12,500

C) Rs. 13,000

D) Rs. 13,500

Answer: A

20. A sum of Rs. 4,200 is divided between A and B so that A's share at 5% p.a. simple interest in 2 years and B's share at 8% p.a. simple interest in 3 years are equal. What is A's share?

A) Rs. 1,200

B) Rs. 1,400

C) Rs. 1,600

D) Rs. 1,800

Answer: A

21. A man borrows Rs. 5,000 at 10% p.a. simple interest and Rs. 3,000 at 12% p.a. simple interest. What is the total amount to be paid after 2 years?

A) Rs. 9,800

B) Rs. 9,900

C) Rs. 10,000

D) Rs. 10,100

Answer: A

22. If the simple interest on a certain sum for 15 days is Rs. 36 at 4 1/2% p.a., what will be the compound interest on the same sum at 4 1/2% p.a. for 15 days compounded daily?

A) Rs. 36

B) Rs. 36.10

C) Rs. 36.20

D) Rs. 36.30

Answer: B

23. A sum of Rs. 1,600 is lent out in two parts, one at 8% p.a. and the other at 6% p.a. simple interest. If the total interest after 2 years is Rs. 272, what is the larger part?

A) Rs. 1,000

B) Rs. 1,100

C) Rs. 1,200

D) Rs. 1,300

Answer: A

24. The simple interest on Rs. 6,375 for 9 months at a certain rate is Rs. 303.75. What is the rate?

A) 6%

B) 7%

C) 8%

D) 9%

Answer: C

25. A sum of Rs. 800 amounts to Rs. 920 in 3 years at simple interest. If the rate is increased by 3 1/3%, what will be the amount after 3 years?

A) Rs. 980

B) Rs. 1,000

C) Rs. 1,020

D) Rs. 1,040

Answer: B

26. A loan of Rs. 10,000 is taken at 8% p.a. simple interest. The borrower pays Rs. 3,000 after 1 year and the rest after 2 years. What is the total interest paid?

A) Rs. 1,200

B) Rs. 1,280

C) Rs. 1,360

D) Rs. 1,440

Answer: C

27. Rs. 9,000 is divided into two parts such that if one part is invested at 6% p.a. and the other at 7% p.a. simple interest for 2 years, the total interest is Rs. 1,170. What is the smaller part?

A) Rs. 3,000

B) Rs. 3,500

C) Rs. 4,000

D) Rs. 4,500

Answer: A

28. The simple interest on a sum for 3 years at 7% p.a. is Rs. 2,100. If the rate is increased by 2%, what would be the interest for the same period?

A) Rs. 2,400

B) Rs. 2,520

C) Rs. 2,640

D) Rs. 2,760

Answer: C

29. A sum amounts to Rs. 1,100 in 2 years and to Rs. 1,200 in 3 years at simple interest. If the same sum is invested at 5% p.a. compound interest for 2 years, what is the principal?

A) Rs. 900

B) Rs. 950

C) Rs. 1,000

D) Rs. 1,050

Answer: C

30. A person borrows Rs. 12,000 at 5% p.a. simple interest for 4 years. He pays Rs. 4,000 at the end of each year. What is the total amount paid as interest?

A) Rs. 1,800

B) Rs. 1,900

C) Rs. 2,000

D) Rs. 2,100

Answer: A

31. If the simple interest on Rs. 5,000 for 2 years is equal to the compound interest on Rs. 4,000 for 2 years at 5% p.a. compounded half-yearly, what is the rate for simple interest?

A) 6%

B) 6.25%

C) 7%

D) 7.5%

Answer: B

32. Rs. 15,000 is lent at simple interest. Part at 4% p.a. and part at 6% p.a. for 2 years. Total interest Rs. 1,200. How much at 4%?

A) Rs. 6,000

B) Rs. 7,000

C) Rs. 8,000

D) Rs. 9,000

Answer: C

33. The simple interest on a sum of money for 15 months at 6% p.a. is Rs. 675. What is the compound interest on the same sum for 18 months at 6% p.a. compounded quarterly?

A) Rs. 1,020

B) Rs. 1,035

C) Rs. 1,050

D) Rs. 1,065

Answer: B

34. A sum of Rs. 2,500 is divided into two parts such that the interest on one part at 8% p.a. for 2 years equals the interest on the other at 9% p.a. for 3 years. What is the larger part?

A) Rs. 1,200

B) Rs. 1,300

C) Rs. 1,400

D) Rs. 1,500

Answer: A

35. A man takes a loan of Rs. 8,000 at 7% p.a. simple interest. He clears it in 3 equal annual installments. What is the total interest paid?

A) Rs. 1,500

B) Rs. 1,600

C) Rs. 1,700

D) Rs. 1,800

Answer: C

36. If Rs. 12,000 yields Rs. 1,440 simple interest in 2 years, what would be the compound interest on the same sum for 2 years at the same rate compounded annually?

A) Rs. 1,488

B) Rs. 1,500

C) Rs. 1,512

D) Rs. 1,524

Answer: A

37. A sum of Rs. 7,200 is lent out at simple interest. If the interest for 3 years is Rs. 1,620 at 7.5% p.a., but if the rate was 8%, what would be the interest for 2 1/2 years?

A) Rs. 1,200

B) Rs. 1,300

C) Rs. 1,400

D) Rs. 1,500

Answer: C

38. A person invests Rs. 20,000 in two parts at 5% and 6% simple interest. After 2 years, total interest is Rs. 2,200. How much was invested at 5%?

A) Rs. 10,000

B) Rs. 12,000

C) Rs. 14,000

D) Rs. 16,000

Answer: B

39. The simple interest on Rs. 4,000 for 2 1/2 years at r% p.a. is equal to the simple interest on Rs. 5,000 for 3 years at (r+1)% p.a. What is r?

A) 5

B) 6

C) 7

D) 8

Answer: D

40. A loan of Rs. 18,000 at 9% p.a. simple interest is repaid in 3 equal annual installments. What is the amount of each installment?

A) Rs. 7,000

B) Rs. 7,200

C) Rs. 7,400

D) Rs. 7,600

Answer: B

41. If the simple interest on a sum for 4 years at 5% p.a. is Rs. 1,000, what is the principal? If the rate is doubled, what is the interest for 2 years?

A) Rs. 5,000; Rs. 500

B) Rs. 5,000; Rs. 1,000

C) Rs. 10,000; Rs. 1,000

D) Rs. 10,000; Rs. 2,000

Answer: A

42. Rs. 10,500 is divided between A and B such that if A invests his share at 5% p.a. for 3 years and B at 4% p.a. for 4 years, the interests are equal. What is B's share?

A) Rs. 4,200

B) Rs. 4,500

C) Rs. 4,800

D) Rs. 5,100

Answer: C

43. A sum of Rs. 9,600 amounts to Rs. 11,000 in t years at simple interest. If the same sum amounts to Rs. 12,500 in (t+2) years at the same rate, what is t?

A) 4

B) 5

C) 6

D) 7

Answer: A

44. A man borrows Rs. 6,000 at 5% p.a. simple interest for 3 years. He pays Rs. 2,000 at the end of first year and Rs. 2,000 at the end of second year. What is the balance with interest at the end of third year?

A) Rs. 2,150

B) Rs. 2,250

C) Rs. 2,350

D) Rs. 2,450

Answer: A

45. The simple interest on Rs. 8,000 for 9 months at 5% p.a. is the same as the compound interest on Rs. 6,000 for 6 months at 10% p.a. compounded quarterly. Verify the principal for SI.

A) Rs. 8,000

B) Rs. 9,000

C) Rs. 10,000

D) Rs. 11,000

Answer: C

46. A sum of Rs. 13,500 is lent at simple interest. Part at 7% p.a. and part at 8% p.a. for 3 years. Total interest Rs. 3,015. How much at 7%?

A) Rs. 5,000

B) Rs. 6,000

C) Rs. 7,000

D) Rs. 8,000

Answer: D

47. If Rs. 4,500 yields Rs. 1,080 simple interest in 8 months, what is the annual rate? If compounded semi-annually, what is the interest for 1 year?

A) 24%; Rs. 1,152

B) 24%; Rs. 1,188.48

C) 28%; Rs. 1,260

D) 28%; Rs. 1,302.72

Answer: A

48. A person takes Rs. 15,000 loan at 6% p.a. simple interest. He repays Rs. 5,000 after 1 year, Rs. 5,000 after 2 years, and the rest after 3 years. Total interest paid?

A) Rs. 1,800

B) Rs. 1,900

C) Rs. 2,000

D) Rs. 2,100

Answer: B

49. The simple interest on a certain sum for 2 1/3 years at 4% p.a. is Rs. 900. What is the principal? If rate is 5%, what is interest for 2 years?

A) Rs. 12,000; Rs. 1,200

B) Rs. 13,000; Rs. 1,300

C) Rs. 14,000; Rs. 1,400

D) Rs. 15,000; Rs. 1,500

Answer: A

50. Rs. 25,000 is divided into three parts such that interest on first part at 4% p.a. for 2 years, second at 5% p.a. for 3 years, and third at 6% p.a. for 4 years are equal. What is the first part?

A) Rs. 6,000

B) Rs. 7,000

C) Rs. 8,000

D) Rs. 9,000

Answer: C

=== TOPIC: number series, LEVEL: easy ===

1. 2, 4, 6, 8, ?

A) 10

B) 12

C) 14

D) 16

Answer: A

2. 1, 4, 9, 16, ?

A) 25

B) 36

C) 49

D) 64

Answer: A

3. 3, 6, 9, 12, ?

A) 15

B) 18

C) 21

D) 24

Answer: A

4. 10, 20, 30, 40, ?

A) 50

B) 60

C) 70

D) 80

Answer: A

5. 5, 10, 15, 20, ?

A) 25

B) 30

C) 35

D) 40

Answer: A

6. 7, 14, 21, 28, ?

A) 35

B) 42

C) 49

D) 56

Answer: A

7. 100, 90, 80, 70, ?

A) 60

B) 50

C) 40

D) 30

Answer: A

8. 1, 3, 5, 7, ?

A) 9

B) 11

C) 13

D) 15

Answer: A

9. 2, 5, 8, 11, ?

A) 14

B) 17

C) 20

D) 23

Answer: A

10. 50, 45, 40, 35, ?

A) 30

B) 25

C) 20

D) 15

Answer: A

11. 4, 8, 12, 16, ?

A) 20

B) 24

C) 28

D) 32

Answer: A

12. 9, 18, 27, 36, ?

A) 45

B) 54

C) 63

D) 72

Answer: A

13. 11, 22, 33, 44, ?

A) 55

B) 66

C) 77

D) 88

Answer: A

14. 6, 12, 18, 24, ?

A) 30

B) 36

C) 42

D) 48

Answer: A

15. 25, 20, 15, 10, ?

A) 5

B) 0

C) -5

D) 10

Answer: A

16. 1, 8, 27, 64, ?

A) 125

B) 216

C) 343

D) 512

Answer: A

17. 13, 26, 39, 52, ?

A) 65

B) 78

C) 91

D) 104

Answer: A

18. 100, 95, 90, 85, ?

A) 80

B) 75

C) 70

D) 65

Answer: A

19. 2, 6, 10, 14, ?

A) 18

B) 22

C) 26

D) 30

Answer: A

20. 49, 36, 25, 16, ?

A) 9

B) 4

C) 1

D) 0

Answer: C

21. 8, 16, 24, 32, ?

A) 40

B) 48

C) 56

D) 64

Answer: A

22. 1, 4, 7, 10, ?

A) 13

B) 16

C) 19

D) 22

Answer: A

23. 81, 64, 49, 36, ?

A) 25

B) 16

C) 9

D) 4

Answer: A

24. 5, 15, 25, 35, ?

A) 45

B) 55

C) 65

D) 75

Answer: A

25. 12, 24, 36, 48, ?

A) 60

B) 72

C) 84

D) 96

Answer: A

26. 99, 88, 77, 66, ?

A) 55

B) 44

C) 33

D) 22

Answer: A

27. 3, 9, 15, 21, ?

A) 27

B) 33

C) 39

D) 45

Answer: A

28. 16, 25, 36, 49, ?

A) 64

B) 81

C) 100

D) 121

Answer: A

29. 7, 14, 21, 28, 35, ?

A) 42

B) 49

C) 56

D) 63

Answer: A

30. 1000, 900, 800, 700, ?

A) 600

B) 500

C) 400

D) 300

Answer: A

31. 4, 12, 20, 28, ?

A) 36

B) 40

C) 44

D) 48

Answer: A

32. 64, 49, 36, 25, ?

A) 16

B) 9

C) 4

D) 1

Answer: A

33. 10, 30, 50, 70, ?

A) 80

B) 90

C) 100

D) 110

Answer: B

34. 1, 16, 81, 256, ?

A) 625

B) 729

C) 841

D) 961

Answer: A

35. 21, 28, 35, 42, ?

A) 49

B) 56

C) 63

D) 70

Answer: A

36. 0, 1, 8, 27, ?

A) 64

B) 81

C) 100

D) 125

Answer: A

37. 15, 30, 45, 60, ?

A) 75

B) 90

C) 105

D) 120

Answer: A

38. 99, 98, 96, 93, ?

A) 89

B) 90

C) 91

D) 92

Answer: B

39. 4, 9, 16, 25, ?

A) 36

B) 49

C) 64

D) 81

Answer: A

40. 2, 3, 5, 7, ?

A) 11

B) 13

C) 17

D) 19

Answer: A

41. 100, 81, 64, 49, ?

A) 36

B) 25

C) 16

D) 9

Answer: A

42. 1, 2, 4, 7, ?

A) 11

B) 12

C) 13

D) 14

Answer: A

43. 8, 27, 64, 125, ?

A) 216

B) 343

C) 512

D) 729

Answer: A

44. 12, 24, 48, 96, ?

A) 192

B) 256

C) 384

D) 512

Answer: A

45. 5, 25, 125, 625, ?

A) 3125

B) 15625

C) 78125

D) 390625

Answer: A

46. 20, 18, 16, 14, ?

A) 12

B) 10

C) 8

D) 6

Answer: A

47. 1, 5, 9, 13, ?

A) 17

B) 21

C) 25

D) 29

Answer: A

48. 36, 30, 24, 18, ?

A) 12

B) 10

C) 8

D) 6

Answer: A

49. 3, 12, 48, 192, ?

A) 768

B) 960

C) 1152

D) 1536

Answer: A

50. 11, 13, 17, 19, ?

A) 23

B) 29

C) 31

D) 37

Answer: A

=== TOPIC: number series, LEVEL: medium ===

1. 1, 4, 27, 256, 3125, ?

A) 46656

B) 7776

C) 16807

D) 59049

Answer: A

2. 2, 3, 5, 9, 17, ?

A) 33

B) 31

C) 35

D) 37

Answer: A

3. 11, 13, 17, 23, 31, ?

A) 41

B) 43

C) 47

D) 53

Answer: A

4. 100, 97, 91, 82, 70, ?

A) 55

B) 56

C) 57

D) 58

Answer: A

5. 3, 9, 21, 45, 93, ?

A) 189

B) 195

C) 201

D) 207

Answer: A

6. 5, 13, 29, 61, 125, ?

A) 253

B) 251

C) 255

D) 257

Answer: A

7. 1, 8, 81, 1024, 15625, ?

A) 248832

B) 177147

C) 1000000

D) 117649

Answer: A

8. 2, 6, 12, 20, 30, ?

A) 42

B) 40

C) 44

D) 46

Answer: A

9. 7, 10, 16, 25, 37, ?

A) 52

B) 50

C) 54

D) 56

Answer: A

10. 4, 16, 64, 256, 1024, ?

A) 4096

B) 2048

C) 8192

D) 16384

Answer: A

11. 1, 5, 14, 30, 55, ?

A) 91

B) 90

C) 92

D) 93

Answer: A

12. 3, 12, 36, 108, 324, ?

A) 972

B) 648

C) 1296

D) 1944

Answer: A

13. 10, 18, 28, 40, 54, ?

A) 70

B) 68

C) 72

D) 74

Answer: A

14. 2, 16, 54, 128, 250, ?

A) 432

B) 432

C) 434

D) 436

Answer: A

15. 1, 11, 31, 71, 151, ?

A) 311

B) 301

C) 321

D) 331

Answer: A

16. 5, 20, 60, 140, 280, ?

A) 500

B) 560

C) 520

D) 580

Answer: B

17. 8, 27, 125, 343, 1331, ?

A) 2331

B) 2197

C) 3375

D) 4913

Answer: A

18. 1, 4, 11, 26, 59, ?

A) 124

B) 126

C) 128

D) 130

Answer: A

19. 6, 10, 18, 34, 66, ?

A) 130

B) 132

C) 134

D) 136

Answer: A

20. 9, 27, 81, 243, 729, ?

A) 2187

B) 1458

C) 2916

D) 3645

Answer: A

21. 2, 5, 11, 23, 47, ?

A) 95

B) 97

C) 99

D) 101

Answer: A

22. 4, 20, 84, 280, 780, ?

A) 1960

B) 2002

C) 2024

D) 2048

Answer: A

23. 1, 7, 25, 79, 241, ?

A) 727

B) 729

C) 731

D) 733

Answer: A

24. 3, 6, 12, 24, 48, ?

A) 96

B) 192

C) 144

D) 120

Answer: A

25. 13, 16, 19, 25, 31, ?

A) 37

B) 39

C) 41

D) 43

Answer: A

26. 1, 2, 6, 24, 120, ?

A) 720

B) 840

C) 960

D) 1080

Answer: A

27. 5, 25, 125, 625, 3125, ?

A) 15625

B) 78125

C) 390625

D) 1953125

Answer: A

28. 2, 8, 32, 128, 512, ?

A) 2048

B) 1024

C) 4096

D) 16384

Answer: A

29. 7, 14, 28, 56, 112, ?

A) 224

B) 168

C) 336

D) 448

Answer: A

30. 1, 3, 9, 27, 81, ?

A) 243

B) 729

C) 2187

D) 6561

Answer: A

31. 10, 15, 25, 40, 65, ?

A) 105

B) 100

C) 110

D) 115

Answer: A

32. 4, 7, 11, 16, 22, ?

A) 29

B) 28

C) 30

D) 31

Answer: A

33. 8, 15, 24, 35, 48, ?

A) 63

B) 64

C) 65

D) 66

Answer: A

34. 1, 8, 27, 64, 125, ?

A) 216

B) 343

C) 512

D) 729

Answer: A

35. 3, 15, 75, 375, 1875, ?

A) 9375

B) 11250

C) 5625

D) 28125

Answer: A

36. 11, 22, 44, 88, 176, ?

A) 352

B) 264

C) 528

D) 704

Answer: A

37. 2, 4, 8, 16, 32, ?

A) 64

B) 128

C) 256

D) 512

Answer: A

38. 5, 11, 23, 47, 95, ?

A) 191

B) 189

C) 193

D) 195

Answer: A

39. 9, 18, 36, 72, 144, ?

A) 288

B) 216

C) 432

D) 576

Answer: A

40. 1, 5, 13, 29, 61, ?

A) 125

B) 121

C) 127

D) 129

Answer: A

41. 6, 12, 24, 48, 96, ?

A) 192

B) 144

C) 288

D) 384

Answer: A

42. 13, 26, 52, 104, 208, ?

A) 416

B) 312

C) 624

D) 832

Answer: A

43. 1, 2, 4, 8, 16, ?

A) 32

B) 64

C) 128

D) 256

Answer: A

44. 4, 12, 36, 108, 324, ?

A) 972

B) 648

C) 1296

D) 1944

Answer: A

45. 7, 21, 63, 189, 567, ?

A) 1701

B) 1134

C) 2268

D) 3402

Answer: A

46. 1, 4, 9, 16, 25, ?

A) 36

B) 49

C) 64

D) 81

Answer: A

47. 10, 20, 40, 80, 160, ?

A) 320

B) 240

C) 480

D) 640

Answer: A

48. 3, 6, 12, 24, 48, ?

A) 96

B) 192

C) 144

D) 120

Answer: A

49. 11, 14, 21, 34, 55, ?

A) 89

B) 88

C) 90

D) 91

Answer: A

50. 2, 5, 10, 17, 26, ?

A) 37

B) 35

C) 39

D) 41

Answer: A

=== TOPIC: number series, LEVEL: hard ===

1. 1, 2, 6, 24, 120, 720, ?

A) 5040

B) 40320

C) 362880

D) 3628800

Answer: A

2. 2, 3, 6, 15, 42, 129, ?

A) 390

B) 392

C) 394

D) 396

Answer: A

3. 1, 5, 22, 85, 298, 915, ?

A) 2602

B) 2604

C) 2606

D) 2608

Answer: B

4. 3, 4, 12, 48, 240, 1440, ?

A) 10080

B) 10082

C) 10084

D) 10086

Answer: A

5. 1, 6, 31, 156, 781, 3906, ?

A) 19531

B) 19533

C) 19535

D) 19537

Answer: A

6. 2, 7, 26, 101, 406, 1631, ?

A) 6554

B) 6556

C) 6558

D) 6560

Answer: A

7. 4, 5, 14, 51, 188, 725, ?

A) 2820

B) 2822

C) 2824

D) 2826

Answer: A

8. 1, 8, 45, 256, 1537, 9216, ?

A) 55297

B) 55299

C) 55301

D) 55303

Answer: A

9. 3, 10, 39, 152, 585, 2254, ?

A) 8665

B) 8667

C) 8669

D) 8671

Answer: A

10. 2, 9, 40, 175, 760, 3279, ?

A) 14150

B) 14152

C) 14154

D) 14156

Answer: A

11. 5, 6, 18, 69, 266, 1035, ?

A) 4026

B) 4028

C) 4030

D) 4032

Answer: A

12. 1, 7, 40, 223, 1240, 6871, ?

A) 38016

B) 38018

C) 38020

D) 38022

Answer: A

13. 4, 11, 34, 107, 340, 1091, ?

A) 3504

B) 3506

C) 3508

D) 3510

Answer: A

14. 2, 8, 35, 152, 659, 2860, ?

A) 12401

B) 12403

C) 12405

D) 12407

Answer: A

15. 6, 7, 22, 85, 334, 1335, ?

A) 5362

B) 5364

C) 5366

D) 5368

Answer: A

16. 1, 9, 52, 301, 1762, 10315, ?

A) 60350

B) 60352

C) 60354

D) 60356

Answer: A

17. 3, 12, 51, 208, 849, 3464, ?

A) 14133

B) 14135

C) 14137

D) 14139

Answer: A

18. 2, 10, 47, 220, 1033, 4840, ?

A) 22697

B) 22699

C) 22701

D) 22703

Answer: A

19. 5, 12, 37, 112, 339, 1024, ?

A) 3095

B) 3097

C) 3099

D) 3101

Answer: A

20. 1, 8, 43, 236, 1295, 7104, ?

A) 38955

B) 38957

C) 38959

D) 38961

Answer: A

21. 4, 13, 46, 163, 574, 2017, ?

A) 7082

B) 7084

C) 7086

D) 7088

Answer: A

22. 2, 9, 44, 215, 1046, 5081, ?

A) 24662

B) 24664

C) 24666

D) 24668

Answer: A

23. 7, 8, 26, 101, 398, 1597, ?

A) 6404

B) 6406

C) 6408

D) 6410

Answer: A

24. 1, 10, 55, 310, 1765, 10010, ?

A) 56715

B) 56717

C) 56719

D) 56721

Answer: A

25. 3, 14, 57, 230, 913, 3634, ?

A) 14473

B) 14475

C) 14477

D) 14479

Answer: A

26. 2, 11, 50, 221, 974, 4291, ?

A) 18922

B) 18924

C) 18926

D) 18928

Answer: A

27. 6, 15, 42, 117, 330, 935, ?

A) 2662

B) 2664

C) 2666

D) 2668

Answer: A

28. 1, 9, 50, 275, 1510, 8281, ?

A) 45466

B) 45468

C) 45470

D) 45472

Answer: A

29. 4, 17, 62, 225, 814, 2937, ?

A) 10602

B) 10604

C) 10606

D) 10608

Answer: A

30. 2, 12, 53, 234, 1035, 4568, ?

A) 20189

B) 20191

C) 20193

D) 20195

Answer: A

31. 8, 9, 30, 119, 472, 1891, ?

A) 7604

B) 7606

C) 7608

D) 7610

Answer: A

32. 1, 11, 60, 335, 1870, 10451, ?

A) 58382

B) 58384

C) 58386

D) 58388

Answer: A

33. 3, 16, 65, 262, 1053, 4224, ?

A) 16905

B) 16907

C) 16909

D) 16911

Answer: A

34. 2, 13, 58, 259, 1154, 5141, ?

A) 22906

B) 22908

C) 22910

D) 22912

Answer: A

35. 5, 16, 49, 148, 445, 1336, ?

A) 4015

B) 4017

C) 4019

D) 4021

Answer: A

36. 1, 12, 63, 352, 1975, 11076, ?

A) 62051

B) 62053

C) 62055

D) 62057

Answer: A

37. 4, 19, 70, 253, 904, 3211, ?

A) 11404

B) 11406

C) 11408

D) 11410

Answer: A

38. 2, 14, 65, 298, 1339, 6014, ?

A) 26969

B) 26971

C) 26973

D) 26975

Answer: A

39. 7, 10, 33, 132, 531, 2132, ?

A) 8533

B) 8535

C) 8537

D) 8539

Answer: A

40. 1, 13, 70, 391, 2192, 12291, ?

A) 68942

B) 68944

C) 68946

D) 68948

Answer: A

41. 3, 18, 75, 312, 1287, 5304, ?

A) 21873

B) 21875

C) 21877

D) 21879

Answer: A

42. 2, 15, 72, 335, 1560, 7265, ?

A) 33830

B) 33832

C) 33834

D) 33836

Answer: A

43. 6, 19, 56, 167, 500, 1501, ?

A) 4504

B) 4506

C) 4508

D) 4510

Answer: A

44. 1, 14, 77, 430, 2409, 13514, ?

A) 75775

B) 75777

C) 75779

D) 75781

Answer: A

45. 4, 21, 82, 305, 1126, 4165, ?

A) 15406

B) 15408

C) 15410

D) 15412

Answer: A

46. 2, 16, 81, 376, 1755, 8192, ?

A) 38225

B) 38227

C) 38229

D) 38231

Answer: A

47. 9, 10, 35, 140, 565, 2272, ?

A) 9113

B) 9115

C) 9117

D) 9119

Answer: A

48. 1, 15, 82, 465, 2622, 14785, ?

A) 83380

B) 83382

C) 83384

D) 83386

Answer: A

49. 3, 20, 87, 372, 1575, 6672, ?

A) 28233

B) 28235

C) 28237

D) 28239

Answer: A

50. 2, 17, 90, 427, 2002, 9385, ?

A) 44042

B) 44044

C) 44046

D) 44048

Answer: A

=== TOPIC: speed and distance, LEVEL: easy ===

1. A car travels 80 km in 2 hours. What is its speed?

A) 30 km/h

B) 40 km/h

C) 50 km/h

D) 60 km/h

Answer: B

2. Convert 45 km/h to m/s.

A) 12.5 m/s

B) 15 m/s

C) 17.5 m/s

D) 20 m/s

Answer: A

3. A bike covers 30 km at 15 km/h. Time taken?

A) 1 hour

B) 2 hours

C) 3 hours

D) 4 hours

Answer: B

4. A man walks 3 km in 1 hour. Distance in 4 hours?

A) 9 km

B) 10 km

C) 12 km

D) 15 km

Answer: C

5. Speed of 54 km/h in m/s?

A) 15 m/s

B) 18 m/s

C) 20 m/s

D) 25 m/s

Answer: A

6. A train covers 150 km in 3 hours. Speed?

A) 40 km/h

B) 50 km/h

C) 60 km/h

D) 70 km/h

Answer: B

7. Cyclist at 10 km/h covers 20 km. Time?

A) 1 hour

B) 2 hours

C) 3 hours

D) 4 hours

Answer: B

8. Two persons walk towards each other at 2 km/h and 3 km/h. Relative speed?

A) 4 km/h

B) 5 km/h

C) 1 km/h

D) 6 km/h

Answer: B

9. A jogger runs 6 km at 3 km/h. Time?

A) 1 hour

B) 2 hours

C) 3 hours

D) 4 hours

Answer: B

10. Speed 24 km/h = ? m/s

A) 6.67 m/s

B) 7 m/s

C) 8 m/s

D) 9 m/s

Answer: A

11. Car travels 120 km in 3 hours. Speed?

A) 30 km/h

B) 40 km/h

C) 50 km/h

D) 60 km/h

Answer: B

12. A bike covers 40 km in 2 hours. Speed?

A) 15 km/h

B) 20 km/h

C) 25 km/h

D) 30 km/h

Answer: B

13. Distance 200 km at 50 km/h. Time?

A) 3 hours

B) 4 hours

C) 5 hours

D) 6 hours

Answer: B

14. Speed 36 km/h in m/s?

A) 10 m/s

B) 12 m/s

C) 15 m/s

D) 18 m/s

Answer: A

15. A runner covers 2 km in 10 minutes. Speed km/h?

A) 10 km/h

B) 12 km/h

C) 15 km/h

D) 20 km/h

Answer: B

16. Train 50 m long at 18 km/h crosses pole. Time?

A) 10 sec

B) 12 sec

C) 14 sec

D) 16 sec

Answer: A

17. Two cars same direction at 30 km/h and 50 km/h. Relative?

A) 20 km/h

B) 80 km/h

C) 40 km/h

D) 25 km/h

Answer: A

18. Boat still water 4 km/h, stream 1 km/h. Downstream?

A) 3 km/h

B) 4 km/h

C) 5 km/h

D) 8 km/h

Answer: C

19. A man runs 300 m in 60 sec. Speed m/s?

A) 4 m/s

B) 5 m/s

C) 6 m/s

D) 7 m/s

Answer: B

20. Car 60 km at 30 km/h. Time?

A) 1 hour

B) 2 hours

C) 3 hours

D) 4 hours

Answer: B

21. Speed 18 km/h = ? m/s

A) 5 m/s

B) 6 m/s

C) 7 m/s

D) 8 m/s

Answer: A

22. Train covers 180 km in 3 hours. Speed?

A) 50 km/h

B) 60 km/h

C) 70 km/h

D) 80 km/h

Answer: B

23. Walker 2 km in 1 hour. Distance in 3 hours?

A) 4 km

B) 5 km

C) 6 km

D) 7 km

Answer: C

24. Relative speed opposite 1 km/h and 2 km/h?

A) 3 km/h

B) 1 km/h

C) 1.5 km/h

D) 0 km/h

Answer: A

25. Cyclist 15 km at 5 km/h. Time?

A) 2 hours

B) 3 hours

C) 4 hours

D) 5 hours

Answer: B

26. Speed 27 km/h in m/s?

A) 7.5 m/s

B) 8 m/s

C) 9 m/s

D) 10 m/s

Answer: A

27. Bus 210 km in 3 hours. Speed?

A) 60 km/h

B) 70 km/h

C) 80 km/h

D) 90 km/h

Answer: A

28. A and B 50 km apart, speeds 10 km/h and 15 km/h towards. Meet in?

A) 2 hours

B) 3 hours

C) 4 hours

D) 5 hours

Answer: A

29. Boat upstream 5 km/h, downstream 7 km/h. Still water?

A) 5 km/h

B) 6 km/h

C) 7 km/h

D) 12 km/h

Answer: B

30. Train 200 m long at 36 km/h crosses pole. Time?

A) 20 sec

B) 22 sec

C) 24 sec

D) 26 sec

Answer: A

31. Car 360 km at 90 km/h. Time?

A) 3 hours

B) 4 hours

C) 5 hours

D) 6 hours

Answer: B

32. Speed 10 m/s = ? km/h

A) 30 km/h

B) 36 km/h

C) 40 km/h

D) 45 km/h

Answer: B

33. Jogger 12 km at 4 km/h. Time?

A) 2 hours

B) 3 hours

C) 4 hours

D) 5 hours

Answer: B

34. Train crosses platform 100 m in 10 sec at 36 km/h. Length?

A) 100 m

B) 150 m

C) 200 m

D) 250 m

Answer: A

35. Two persons same direction 2 km/h and 4 km/h. Relative?

A) 2 km/h

B) 6 km/h

C) 3 km/h

D) 0 km/h

Answer: A

36. Boat still water 5 km/h, stream 2 km/h. Upstream?

A) 3 km/h

B) 5 km/h

C) 7 km/h

D) 10 km/h

Answer: A

37. Runner 400 m in 80 sec. Speed m/s?

A) 4 m/s

B) 5 m/s

C) 6 m/s

D) 7 m/s

Answer: B

38. Car 180 km in 3 hours. Speed?

A) 50 km/h

B) 60 km/h

C) 70 km/h

D) 80 km/h

Answer: B

39. Speed 20 km/h = ? m/s

A) 5.56 m/s

B) 6 m/s

C) 7 m/s

D) 8 m/s

Answer: A

40. Train 240 km in 4 hours. Speed?

A) 50 km/h

B) 60 km/h

C) 70 km/h

D) 80 km/h

Answer: B

41. Walker 7 km in 2 hours. Distance in 6 hours?

A) 18 km

B) 21 km

C) 24 km

D) 27 km

Answer: B

42. Relative speed opposite 4 km/h and 5 km/h?

A) 9 km/h

B) 1 km/h

C) 4.5 km/h

D) 0 km/h

Answer: A

43. Bike 25 km at 5 km/h. Time?

A) 4 hours

B) 5 hours

C) 6 hours

D) 7 hours

Answer: B

44. Speed 32 km/h in m/s?

A) 8.89 m/s

B) 9 m/s

C) 10 m/s

D) 11 m/s

Answer: A

45. Bus 160 km in 2 hours. Speed?

A) 70 km/h

B) 80 km/h

C) 90 km/h

D) 100 km/h

Answer: B

46. A and B 70 km apart, speeds 14 km/h and 21 km/h towards. Meet in?

A) 2 hours

B) 3 hours

C) 4 hours

D) 5 hours

Answer: A

47. Boat upstream 6 km/h, downstream 8 km/h. Still water?

A) 6 km/h

B) 7 km/h

C) 8 km/h

D) 14 km/h

Answer: B

48. Train 150 m long at 27 km/h crosses pole. Time?

A) 20 sec

B) 22 sec

C) 24 sec

D) 26 sec

Answer: A

49. Car 280 km at 70 km/h. Time?

A) 3 hours

B) 4 hours

C) 5 hours

D) 6 hours

Answer: B

50. Speed 8 m/s = ? km/h

A) 24 km/h

B) 28.8 km/h

C) 32 km/h

D) 36 km/h

Answer: B

=== TOPIC: speed and distance, LEVEL: medium ===

1. A train 150 m long passes a man walking at 5 km/h in the same direction in 18 seconds. What is the speed of the train?

A) 45 km/h

B) 50 km/h

C) 55 km/h

D) 60 km/h

Answer: B

2. Two trains, 200 m and 300 m long, are running in the same direction at 60 km/h and 40 km/h respectively. How long will it take for the faster train to cross the slower one?

A) 18 seconds

B) 20 seconds

C) 22 seconds

D) 24 seconds

Answer: A

3. A boat goes 24 km downstream in 3 hours and 24 km upstream in 4 hours. What is the speed of the boat in still water?

A) 6 km/h

B) 7 km/h

C) 8 km/h

D) 9 km/h

Answer: A

4. A car travels the first half of a 200 km journey at 40 km/h and the second half at 60 km/h. What is the average speed for the entire journey?

A) 48 km/h

B) 50 km/h

C) 52 km/h

D) 54 km/h

Answer: A

5. A train crosses a platform 120 m long in 15 seconds at a speed of 72 km/h. What is the length of the train?

A) 168 m

B) 180 m

C) 192 m

D) 204 m

Answer: A

6. A and B are 180 km apart. A travels towards B at 40 km/h while B travels towards A at 50 km/h. After how long will they meet?

A) 2 hours

B) 2.5 hours

C) 3 hours

D) 3.5 hours

Answer: C

7. The relative speed of two trains running in opposite directions is 80 km/h, and their lengths are 200 m and 250 m. How long will it take for them to cross each other?

A) 18 seconds

B) 20 seconds

C) 22 seconds

D) 24 seconds

Answer: A

8. A person runs 100 m in 10 seconds and then 200 m in 25 seconds. What is the average speed for the 300 m distance?

A) 12 m/s

B) 13 m/s

C) 14 m/s

D) 15 m/s

Answer: A

9. A boat travels 30 km downstream in 2 hours and the same distance upstream in 3 hours. What is the speed of the stream?

A) 2 km/h

B) 3 km/h

C) 4 km/h

D) 5 km/h

Answer: B

10. A train 250 m long crosses another train 350 m long coming from the opposite direction in 20 seconds. If the speed of the first train is 72 km/h, what is the speed of the second train?

A) 36 km/h

B) 40 km/h

C) 44 km/h

D) 48 km/h

Answer: A

11. A car covers the first 100 km of a journey at 50 km/h and the next 100 km at 75 km/h. What is the average speed?

A) 60 km/h

B) 62.5 km/h

C) 65 km/h

D) 70 km/h

Answer: A

12. A man walking at 4 km/h towards a railway station meets a train coming from behind at 60 km/h, 2 km from the station. What is the man's distance from the station initially?

A) 8 km

B) 10 km

C) 12 km

D) 14 km

Answer: B

13. Two cyclists start 30 km apart and cycle towards each other at 12 km/h and 15 km/h. After how long do they meet?

A) 1.2 hours

B) 1.5 hours

C) 1.8 hours

D) 2 hours

Answer: B

14. A train 180 m long crosses a bridge 320 m long in 20 seconds. What is the speed of the train?

A) 45 km/h

B) 50 km/h

C) 55 km/h

D) 60 km/h

Answer: C

15. A boat's speed in still water is 12 km/h, and the stream speed is 3 km/h. How long will it take to go 36 km downstream and back?

A) 4 hours

B) 4.5 hours

C) 5 hours

D) 5.5 hours

16. A starts from point P at 30 km/h, and B starts from point Q (100 km away) at 40 km/h in the same direction 1 hour later. When will B catch up to A?

A) 2 hours

B) 3 hours

C) 4 hours

D) 5 hours

Answer: A

17. A train crosses a man walking in the same direction in 12 seconds and a man walking in the opposite direction in 8 seconds. If the train's speed is 54 km/h, what is the speed of the first man?

A) 3 km/h

B) 4 km/h

C) 5 km/h

D) 6 km/h

Answer: D

18. The average speed for a 200 km trip is 50 km/h. If the first 100 km is covered at 40 km/h, what is the speed for the second 100 km?

A) 66.67 km/h

B) 75 km/h

C) 80 km/h

D) 100 km/h

Answer: A

19. Two trains are 200 km apart and moving towards each other at 50 km/h and 70 km/h. After how long do they meet?

A) 1.5 hours

B) 2 hours

C) 2.5 hours

D) 3 hours

Answer: B

20. A boat travels at 10 km/h in still water with a stream of 2 km/h. What is the effective speed upstream for a 20 km journey?

A) 8 km/h

B) 10 km/h

C) 12 km/h

D) 20 km/h

Answer: A

21. A car covers 360 km in 6 hours. If the first 180 km is at 50 km/h, what is the speed for the remaining 180 km?

A) 60 km/h

B) 70 km/h

C) 80 km/h

D) 90 km/h

Answer: B

22. A train 240 m long crosses a platform 160 m long in 24 seconds. What is the speed of the train?

A) 40 km/h

B) 45 km/h

C) 50 km/h

D) 55 km/h

Answer: C

23. A and B start from the same point, A at 8 km/h and B at 12 km/h in opposite directions. How far apart are they after 3 hours?

A) 30 km

B) 36 km

C) 60 km

D) 72 km

Answer: C

24. The relative speed of two objects moving in the same direction is 15 m/s and 25 m/s. What is the relative speed?

A) 10 m/s

B) 40 m/s

C) 20 m/s

D) 30 m/s

Answer: A

25. A swimmer crosses a 2 km wide river at 5 km/h in still water with a 2 km/h stream. Time downstream?

A) 0.4 hours

B) 0.5 hours

C) 0.6 hours

D) 1 hour

Answer: A

26. A train 300 m long crosses another train 400 m long coming from the opposite direction in 25 seconds. If the first train's speed is 72 km/h, what is the second train's speed?

A) 36 km/h

B) 40 km/h

C) 44 km/h

D) 48 km/h

Answer: A

27. A man cycles 50 km at 25 km/h and walks back the same distance at 5 km/h. What is the average speed for the round trip?

A) 8.33 km/h

B) 10 km/h

C) 12 km/h

D) 15 km/h

Answer: A

28. A boat's speed in still water is 15 km/h, and the stream is 3 km/h. Time to travel 45 km upstream?

A) 3.75 hours

B) 4 hours

C) 4.25 hours

D) 4.5 hours

Answer: A

29. Two persons are 40 km apart and walking towards each other at 5 km/h and 6 km/h. How far from the first person do they meet?

A) 20 km

B) 22 km

C) 24 km

D) 26 km

Answer: A

30. A train crosses a pole in 10 seconds and a 200 m platform in 25 seconds at the same speed. What is the length of the train?

A) 120 m

B) 150 m

C) 180 m

D) 210 m

Answer: A

31. A car travels for 4 hours at 50 km/h and then for 3 hours at 60 km/h. What is the average speed for the entire trip?

A) 54 km/h

B) 55 km/h

C) 56 km/h

D) 57 km/h

Answer: A

32. A boat travels 20 km downstream in 1 hour and 20 km upstream in 1.5 hours. What is the speed of the boat in still water?

A) 10 km/h

B) 12 km/h

C) 14 km/h

D) 16 km/h

Answer: B

33. Two runners start from the same point in opposite directions, one at 10 km/h and the other at 14 km/h. How far apart are they after 2.5 hours?

A) 30 km

B) 35 km

C) 60 km

D) 70 km

Answer: C

34. A train's speed is 72 km/h, and its length is 400 m. How long does it take to cross a tunnel 600 m long?

A) 36 seconds

B) 40 seconds

C) 44 seconds

D) 48 seconds

Answer: A

35. A and B are 250 km apart. A travels at 50 km/h towards B, and B travels at 60 km/h in the same direction. How long until A catches up if B started 1 hour earlier?

A) 4 hours

B) 5 hours

C) 6 hours

D) 7 hours

Answer: B

36. The average speed for a 300 km trip is 60 km/h. If the first 150 km is at 50 km/h, what is the speed for the second 150 km?

A) 70 km/h

B) 75 km/h

C) 80 km/h

D) 90 km/h

Answer: A

37. A train crosses a man in 9 seconds and a platform 100 m long in 18 seconds. If the train's speed is 54 km/h, what is the length of the train?

A) 150 m

B) 180 m

C) 210 m

D) 240 m

Answer: A

38. A boat goes 36 km downstream in 3 hours and 36 km upstream in 5 hours. What is the speed of the stream?

A) 2 km/h

B) 3 km/h

C) 4 km/h

D) 5 km/h

Answer: B

39. Two trains start 200 km apart and move towards each other at 40 km/h and 50 km/h. How far from the starting point of the first train do they meet?

A) 80 km

B) 100 km

C) 120 km

D) 140 km

Answer: B

40. A car's speed is 60 km/h for the first half of the distance and 80 km/h for the second half. If the total distance is 200 km, what is the average speed?

A) 68 km/h

B) 70 km/h

C) 72 km/h

D) 74 km/h

Answer: A

41. A train 200 m long crosses a bridge 300 m long in 25 seconds. What is the speed of the train?

A) 36 km/h

B) 40 km/h

C) 44 km/h

D) 48 km/h

Answer: B

42. A starts at 40 km/h from point P, and B starts from point Q (120 km away) at 50 km/h in the same direction 2 hours later. When does B catch A?

A) 4 hours

B) 5 hours

C) 6 hours

D) 8 hours

Answer: C

43. A train crosses a man walking in the opposite direction in 8 seconds and in the same direction in 12 seconds. If the train's speed is 54 km/h, what is the man's speed?

A) 3 km/h

B) 4 km/h

C) 5 km/h

D) 6 km/h

Answer: D

44. The average speed for 240 km is 48 km/h. If the first 120 km is at 40 km/h, what is the speed for the second 120 km?

A) 60 km/h

B) 64 km/h

C) 68 km/h

D) 72 km/h

Answer: A

45. Two trains are 150 km apart and approaching at 30 km/h and 40 km/h. After how long do they meet?

A) 2 hours

B) 2.5 hours

C) 3 hours

D) 3.5 hours

Answer: B

46. A boat's speed in still water is 9 km/h, and the stream is 2 km/h. Effective speed upstream for 18 km?

A) 7 km/h

B) 9 km/h

C) 11 km/h

D) 18 km/h

Answer: A

47. A car covers 400 km in 6 hours. If the first 200 km is at 50 km/h, what is the speed for the remaining 200 km?

A) 60 km/h

B) 70 km/h

C) 80 km/h

D) 90 km/h

Answer: B

48. A train 160 m long crosses a platform 140 m long in 20 seconds. What is the speed of the train?

A) 40 km/h

B) 45 km/h

C) 50 km/h

D) 55 km/h

Answer: C

49. A and B start from the same point, A at 4 km/h and B at 6 km/h in opposite directions. How far apart are they after 5 hours?

A) 25 km

B) 30 km

C) 50 km

D) 60 km

Answer: C

50. Relative speed of two objects in the same direction is 10 m/s and 20 m/s. What is the relative speed?

A) 10 m/s

B) 30 m/s

C) 15 m/s

D) 25 m/s

Answer: A

=== TOPIC: speed and distance, LEVEL: hard ===

1. A train 300 m long crosses a platform 400 m long and then a man standing on the platform in a total of 45 seconds. If the speed of the train is 72 km/h, what is the length of the platform?

A) 200 m

B) 250 m

C) 300 m

D) 350 m

Answer: B

2. Two trains, one 250 m long and the other 350 m long, are moving in opposite directions at 60 km/h and 80 km/h respectively. They cross each other in 18 seconds. What is the distance between them when they start?

A) 2.16 km

B) 2.4 km

C) 2.64 km

D) 2.88 km

Answer: C

3. A boat takes 4 hours to go 20 km upstream and 3 hours to return 20 km downstream. If the speed of the boat in still water is 7.5 km/h, what is the speed of the stream?

A) 1.5 km/h

B) 2 km/h

C) 2.5 km/h

D) 3 km/h

Answer: C

4. A car travels the first 1/4 of a 400 km journey at 50 km/h, the second 1/4 at 60 km/h, the third 1/4 at 70 km/h, and the last 1/4 at 80 km/h. What is the average speed for the entire journey?

A) 64 km/h

B) 65 km/h

C) 66 km/h

D) 67 km/h

Answer: B

5. A train crosses a 150 m platform in 18 seconds and crosses a 200 m platform in 24 seconds. What is the length of the train and its speed?

A) 150 m, 50 km/h

B) 180 m, 45 km/h

C) 200 m, 40 km/h

D) 120 m, 60 km/h

Answer: B

6. A and B are 320 km apart. A starts at 40 km/h towards B, and B starts at 50 km/h towards A after 1 hour. When and where do they meet?

A) After 3 hours from A's start, 160 km from A

B) After 4 hours from A's start, 200 km from A

C) After 2.5 hours from A's start, 140 km from A

D) After 3.5 hours from A's start, 180 km from A

Answer: A

7. The relative speed of two trains in opposite directions is 90 km/h, with lengths 300 m and 400 m. They take 28 seconds to cross. What is the individual speed of the slower train?

A) 30 km/h

B) 35 km/h

C) 40 km/h

D) 45 km/h

Answer: A

8. A person runs 200 m in 20 seconds, rests 10 seconds, then runs 300 m in 30 seconds. What is the average speed for the 500 m distance?

A) 10 m/s

B) 11 m/s

C) 12 m/s

D) 13 m/s

Answer: B

9. A boat travels 48 km downstream in 4 hours and 48 km upstream in 6 hours. The speed in still water is 9 km/h. Verify the stream speed.

A) 2 km/h

B) 3 km/h

C) 4 km/h

D) 5 km/h

Answer: B

10. A train 400 m long crosses a 500 m bridge in 50 seconds and a 300 m train in 30 seconds in the opposite direction. If the second train's speed is 45 km/h, what is the first train's speed?

A) 75 km/h

B) 80 km/h

C) 85 km/h

D) 90 km/h

Answer: A

11. A car covers the first 1/3 of 300 km at 60 km/h, the second 1/3 at 50 km/h, and the last 1/3 at 70 km/h. What is the average speed?

A) 58.82 km/h

B) 60 km/h

C) 62.5 km/h

D) 65 km/h

Answer: B

12. A man walking at 5 km/h towards a station meets a train 3 km from the station. The train takes 12 seconds to pass him at 72 km/h. What was the man's initial distance from the station?

A) 9 km

B) 10 km

C) 12 km

D) 15 km

Answer: A

13. Two cyclists start 40 km apart, one at 14 km/h and the other at 16 km/h towards each other. After how long do they meet, and how far has the slower one traveled?

A) 2.5 hours, 35 km

B) 2 hours, 28 km

C) 2.8 hours, 39.2 km

D) 3 hours, 42 km

Answer: B

14. A train 280 m long crosses a bridge 420 m long in 35 seconds. What is the speed of the train?

A) 60 km/h

B) 65 km/h

C) 70 km/h

D) 75 km/h

Answer: A

15. A boat's speed in still water is 13 km/h, stream 3.5 km/h. Time to go 52 km downstream and back upstream?

A) 8 hours

B) 8.5 hours

C) 9 hours

D) 9.5 hours

Answer: A

16. A starts from P at 45 km/h, B from Q (140 km away) at 55 km/h same direction 1.5 hours later. When does B catch A?

A) 2.8 hours

B) 3 hours

C) 3.2 hours

D) 3.5 hours

Answer: A

17. A train crosses a man walking same direction in 15 sec and opposite in 9 sec. Train speed 60 km/h, man's speed?

A) 4 km/h

B) 5 km/h

C) 6 km/h

D) 7 km/h

Answer: C

18. Average speed 240 km is 60 km/h. First 120 km at 50 km/h, second speed?

A) 70 km/h

B) 75 km/h

C) 80 km/h

D) 90 km/h

Answer: A

19. Two trains 160 km apart, 40 km/h and 50 km/h towards. Meet after?

A) 2.67 hours

B) 3 hours

C) 3.2 hours

D) 3.5 hours

Answer: B

20. Boat 12 km/h still water, stream 2.5 km/h. Upstream speed for 30 km?

A) 9.5 km/h

B) 14.5 km/h

C) 15 km/h

D) 30 km/h

Answer: A

21. Car 420 km in 7 hours. First 210 km at 60 km/h, remaining speed?

A) 70 km/h

B) 80 km/h

C) 90 km/h

D) 100 km/h

Answer: B

22. Train 220 m long crosses platform 180 m long in 22 seconds. Speed?

A) 45 km/h

B) 50 km/h

C) 55 km/h

D) 60 km/h

Answer: C

23. A and B same point, A 7 km/h, B 10 km/h opposite. Distance after 4 hours?

A) 28 km

B) 34 km

C) 56 km

D) 68 km

Answer: C

24. Relative speed same direction 10 m/s and 16 m/s?

A) 6 m/s

B) 26 m/s

C) 13 m/s

D) 20 m/s

Answer: A

25. Swimmer crosses 5 km river at 7 km/h still water, stream 2 km/h. Time downstream?

A) 0.625 hours

B) 0.714 hours

C) 0.833 hours

D) 1 hour

Answer: A

26. Train 450 m long crosses another 550 m long opposite in 40 seconds. First speed 90 km/h, second speed?

A) 45 km/h

B) 50 km/h

C) 55 km/h

D) 60 km/h

Answer: A

27. Man cycles 80 km at 40 km/h, walks back at 8 km/h. Average round trip?

A) 13.33 km/h

B) 14 km/h

C) 15 km/h

D) 16 km/h

Answer: A

28. Boat 17 km/h still water, stream 5 km/h. Time 68 km upstream?

A) 4 hours

B) 4.5 hours

C) 5 hours

D) 5.5 hours

Answer: A

29. Two persons 70 km apart, speeds 10 km/h and 12 km/h towards. Distance from first when meet?

A) 30 km

B) 35 km

C) 40 km

D) 45 km

Answer: B

30. Train crosses pole in 16 seconds, 300 m platform in 32 seconds. Train length?

A) 300 m

B) 360 m

C) 420 m

D) 480 m

Answer: A

31. Car 5 hours at 80 km/h, 4 hours at 90 km/h. Average speed?

A) 84 km/h

B) 85 km/h

C) 86 km/h

D) 87 km/h

Answer: A

32. Boat 32 km downstream in 2.5 hours, upstream in 4 hours. Still water speed?

A) 12 km/h

B) 13 km/h

C) 14 km/h

D) 15 km/h

Answer: B

33. Two runners same point, one 16 km/h, other 20 km/h opposite. Distance after 3.5 hours?

A) 126 km

B) 140 km

C) 252 km

D) 280 km

Answer: C

34. Train 540 m long at 81 km/h crosses tunnel 810 m in?

A) 48 sec

B) 52 sec

C) 56 sec

D) 60 sec

Answer: A

35. A and B 280 km apart, A 56 km/h, B 70 km/h same direction. B gains 56 km in?

A) 4 hours

B) 5 hours

C) 6 hours

D) 7 hours

Answer: A

36. Average speed 420 km at 105 km/h return at 70 km/h?

A) 84 km/h

B) 87 km/h

C) 90 km/h

D) 93 km/h

Answer: A

37. Train crosses 5 poles 1.6 km apart in 48 sec at 72 km/h. Speed?

A) 72 km/h

B) 80 km/h

C) 90 km/h

D) 100 km/h

Answer: A

38. Swimmer 8 km/h still water, stream 3 km/h. Time cross 24 km river downstream?

A) 2.4 hours

B) 3 hours

C) 3.6 hours

D) 4 hours

Answer: B

39. Two trains 450 m and 550 m long at 60 km/h and 80 km/h opposite. Cross time?

A) 24 sec

B) 26 sec

C) 28 sec

D) 30 sec

Answer: A

40. Car first half at 70 km/h, second half at 90 km/h for 300 km. Average?

A) 78 km/h

B) 80 km/h

C) 82 km/h

D) 84 km/h

Answer: A

41. Runner 2400 m, first 1200 m 144 sec, second 1200 m 156 sec. Average m/s?

A) 8 m/s

B) 8.89 m/s

C) 9.09 m/s

D) 9.33 m/s

Answer: B

42. Train at 108 km/h crosses 400 m platform and 350 m train same direction in 30 sec. Platform length?

A) 250 m

B) 300 m

C) 350 m

D) 400 m

Answer: A

43. Woman walks to market 3.5 km at 7 km/h, auto 70 km/h waits 5 min. If leaves 10 min early, wait?

A) 0 min

B) 2.5 min

C) 5 min

D) 7.5 min

Answer: A

44. Boat upstream 15 km in 3 hours, downstream 15 km in 1.5 hours. Stream speed?

A) 3 km/h

B) 4 km/h

C) 5 km/h

D) 6 km/h

Answer: A

45. Two walkers 30 km apart, speeds 15 km/h and 18 km/h same direction. Faster gains 9 km in?

A) 2 hours

B) 3 hours

C) 4 hours

D) 5 hours

Answer: B

46. Train crosses post in 12 sec, bridge 600 m in 48 sec at 90 km/h. Train length?

A) 300 m

B) 350 m

C) 400 m

D) 450 m

Answer: A

47. Average speed 360 km at 90 km/h with 4 hours stop?

A) 72 km/h

B) 75 km/h

C) 78 km/h

D) 81 km/h

Answer: A

48. A train 350 m long crosses a 450 m bridge in 40 seconds and a 250 m train in 20 seconds in the same direction. If the second train's speed is 50 km/h, what is the first train's speed?

A) 80 km/h

B) 85 km/h

C) 90 km/h

D) 95 km/h

Answer: C

49. A car travels 500 km, first 200 km at 60 km/h, next 150 km at 75 km/h, last 150 km at 90 km/h. Average speed?

A) 75 km/h

B) 77 km/h

C) 79 km/h

D) 81 km/h

Answer: B

50. A boat goes 40 km upstream in 5 hours and downstream in 2.5 hours. Stream speed if still water is 8 km/h?

A) 2 km/h

B) 2.5 km/h

C) 3 km/h

D) 3.5 km/h

Answer: A

=== TOPIC: average, LEVEL: easy ===

1. The average of 5 numbers is 20. If one number is 15, what is the average of the remaining 4 numbers?

A) 20

B) 21

C) 22

D) 23

Answer: B

2. Find the average of first 5 prime numbers.

A) 5

B) 6

C) 7

D) 8

Answer: A

3. The average age of 3 boys is 12 years. What is their total age?

A) 30 years

B) 36 years

C) 42 years

D) 48 years

Answer: B

4. If the average of 4 numbers is 25, what is their sum?

A) 80

B) 90

C) 100

D) 110

Answer: C

5. The average of 10 numbers is 15. If 5 more numbers with average 20 are added, new average?

A) 16

B) 17

C) 18

D) 19

Answer: B

6. Average of 2, 4, 6, 8, 10 is:

A) 5

B) 6

C) 7

D) 8

Answer: B

7. The average of first 10 natural numbers is:

A) 4.5

B) 5

C) 5.5

D) 6

Answer: C

8. If average of 3 numbers is 30 and sum is 90, one number is 20. Average of other two?

A) 30

B) 35

C) 40

D) 45

Answer: B

9. Average marks of 5 students is 60. Total marks?

A) 250

B) 300

C) 350

D) 400

Answer: B

10. The average of 1, 3, 5, 7, 9 is:

A) 4

B) 5

C) 6

D) 7

Answer: B

11. Average height of 4 people is 160 cm. Total height?

A) 600 cm

B) 640 cm

C) 680 cm

D) 720 cm

Answer: B

12. If average of 6 numbers is 18, sum is 108. Replace 12 with 18, new average?

A) 18

B) 19

C) 20

D) 21

Answer: B

13. Average of even numbers from 2 to 10 is:

A) 5

B) 6

C) 7

D) 8

Answer: B

14. The average of 20, 30, 40, 50 is:

A) 30

B) 35

C) 40

D) 45

Answer: B

15. Average salary of 5 employees is Rs. 4000. Total salary?

A) Rs. 18000

B) Rs. 20000

C) Rs. 22000

D) Rs. 24000

Answer: B

16. If average of 4 numbers is 25, sum 100. One is 20, average of rest?

A) 25

B) 26.67

C) 28

D) 30

Answer: B

17. Average of first 5 multiples of 3 is:

A) 6

B) 9

C) 12

D) 15

Answer: B

18. The average of 10, 20, 30 is 20. Add 40, new average?

A) 20

B) 25

C) 30

D) 35

Answer: B

19. Average weight of 3 bags is 10 kg. Total weight?

A) 25 kg

B) 30 kg

C) 35 kg

D) 40 kg

Answer: B

20. The average of 5, 10, 15, 20, 25 is:

A) 10

B) 15

C) 20

D) 25

Answer: B

21. Average of first 6 natural numbers is:

A) 3

B) 3.5

C) 4

D) 4.5

Answer: B

22. If average of 5 numbers is 40, sum 200. One 30, average of other 4?

A) 40

B) 42.5

C) 45

D) 47.5

Answer: B

23. Average of odd numbers from 1 to 9 is:

A) 3

B) 4

C) 5

D) 6

Answer: C

24. The average of 15, 25, 35 is 25. Add 45, new average?

A) 25

B) 30

C) 35

D) 40

Answer: B

25. Average price of 4 items is Rs. 50. Total price?

A) Rs. 150

B) Rs. 200

C) Rs. 250

D) Rs. 300

Answer: B

26. If average of 3 numbers is 15, sum 45. One 10, average of other two?

A) 15

B) 17.5

C) 20

D) 22.5

Answer: B

27. Average of first 4 multiples of 4 is:

A) 6

B) 8

C) 10

D) 12

Answer: C

28. The average of 8, 12, 16, 20 is:

A) 12

B) 14

C) 16

D) 18

Answer: B

29. Average temperature of 5 days is 25°C. Total temperature?

A) 100°C

B) 125°C

C) 150°C

D) 175°C

Answer: B

30. If average of 6 numbers is 24, sum 144. Replace 20 with 30, new average?

A) 24

B) 25

C) 26

D) 27

Answer: B

31. Average of squares of first 3 natural numbers is:

A) 3

B) 4.33

C) 5

D) 6

Answer: C

32. The average of 25, 35, 45, 55 is:

A) 35

B) 40

C) 45

D) 50

Answer: B

33. Average runs of 4 players is 50. Total runs?

A) 150

B) 200

C) 250

D) 300

Answer: B

34. If average of 4 numbers is 30, sum 120. One 25, average of rest?

A) 30

B) 31.67

C) 33

D) 35

Answer: B

35. Average of first 5 even numbers is:

A) 4

B) 5

C) 6

D) 7

Answer: C

36. The average of 10, 15, 20, 25, 30 is:

A) 15

B) 20

C) 25

D) 30

Answer: B

37. Average height of 6 students is 160 cm. Total height?

A) 900 cm

B) 960 cm

C) 1020 cm

D) 1080 cm

Answer: B

38. If average of 5 numbers is 35, sum 175. One 40, average of other 4?

A) 35

B) 34

C) 33

D) 32

Answer: B

39. Average of first 7 natural numbers is:

A) 3

B) 4

C) 4.5

D) 5

Answer: B

40. The average of 4, 8, 12, 16 is:

A) 8

B) 10

C) 12

D) 14

Answer: B

41. Average marks of 3 students is 80. Total marks?

A) 200

B) 240

C) 280

D) 320

Answer: B

42. If average of 7 numbers is 20, sum 140. Replace 15 with 25, new average?

A) 20

B) 21

C) 22

D) 23

Answer: B

43. Average of multiples of 5 from 5 to 25 is:

A) 10

B) 12

C) 15

D) 18

Answer: C

44. The average of 20, 40, 60, 80 is:

A) 40

B) 50

C) 60

D) 70

Answer: B

45. Average weight of 5 boxes is 10 kg. Total weight?

A) 40 kg

B) 50 kg

C) 60 kg

D) 70 kg

Answer: B

46. If average of 3 numbers is 25, sum 75. One 30, average of other two?

A) 25

B) 22.5

C) 20

D) 27.5

Answer: B

47. Average of first 4 odd numbers is:

A) 3

B) 4

C) 5

D) 6

Answer: C

48. The average of 1 to 20 is 10.5. Sum?

A) 200

B) 210

C) 220

D) 230

Answer: B

49. Average of 50, 60, 70 is 60. Add 80, new average?

A) 60

B) 65

C) 70

D) 75

Answer: B

50. Average income of 4 people is Rs. 5000. Total income?

A) Rs. 18000

B) Rs. 20000

C) Rs. 22000

D) Rs. 24000

Answer: B

=== TOPIC: average, LEVEL: medium ===

1. The average of 5 numbers is 28. If one number is excluded, the average becomes 25. What is the excluded number?

A) 40

B) 45

C) 50

D) 55

Answer: C

2. The average weight of 8 boys is 50 kg. If the average weight of 6 of them is 48 kg, what is the average weight of the remaining 2 boys?

A) 52 kg

B) 54 kg

C) 56 kg

D) 58 kg

Answer: C

3. The average of first 10 odd numbers is 9. If we add the 11th odd number, what is the new average?

A) 9.5

B) 10

C) 10.5

D) 11

Answer: B

4. The average marks of a class of 40 students is 60. If 10 students with average 50 are removed, what is the average of the remaining students?

A) 62

B) 64

C) 65

D) 66

Answer: C

5. The average salary of 4 employees is Rs. 5000. If the salary of one employee is increased by Rs. 1000, what is the new average?

A) Rs. 5250

B) Rs. 5500

C) Rs. 5750

D) Rs. 6000

Answer: B

6. The average of 20 numbers is 25. If 5 numbers with average 30 are replaced by 5 numbers with average 20, what is the new average?

A) 22

B) 23

C) 24

D) 25

Answer: B

7. The average age of a father and son is 30 years. After 5 years, it will be 33 years. What is the son's current age?

A) 20 years

B) 25 years

C) 30 years

D) 35 years

Answer: B

8. The average of 10 consecutive even numbers is 35. What is the first number?

A) 20

B) 22

C) 24

D) 26

Answer: D

9. The average of 4 numbers is 30. If the smallest is 20 and largest is 40, what is the average of the middle two?

A) 28

B) 30

C) 32

D) 34

Answer: B

10. The average monthly salary of 5 workers is Rs. 3000. If the salary of one worker increases by 20%, what is the new average?

A) Rs. 3040

B) Rs. 3120

C) Rs. 3200

D) Rs. 3280

Answer: B

11. The average of first n natural numbers is (n+1)/2. For n=10, verify the sum.

A) 55

B) 60

C) 65

D) 70

Answer: A

12. The average of 6 numbers is 42. If the average of first 3 is 40 and last 3 is 44, what is the average of the 3rd and 4th?

A) 42

B) 43

C) 44

D) 45

Answer: A

13. The average score of a team in 5 matches is 80. If scores in first 3 matches are 70, 80, 90, what is the average of last 2?

A) 85

B) 90

C) 95

D) 100

Answer: B

14. The average of 12 numbers is 18. If 3 numbers with average 15 are added, new average?

A) 17

B) 17.25

C) 17.5

D) 18

Answer: C

15. The average age of 10 students is 15 years. If 2 students of age 12 and 18 are added, new average?

A) 15

B) 15.2

C) 15.5

D) 16

Answer: B

16. The average of 5 consecutive numbers is 25. What is the middle number?

A) 23

B) 25

C) 27

D) 29

Answer: B

17. The average marks of 20 students is 60. If 5 students with average 50 are replaced by 5 with average 70, new average?

A) 62

B) 64

C) 65

D) 66

Answer: B

18. The average of ages of husband and wife is 30. If husband's age is 5 years more than twice wife's age, wife's age?

A) 20

B) 25

C) 30

D) 35

Answer: A

19. The average of 8 numbers is 25. If two numbers 20 and 30 are removed, average of remaining 6?

A) 25

B) 26

C) 27

D) 28

Answer: A

20. The average temperature for 7 days is 25°C. If Monday to Friday average 24°C, what is average of Saturday and Sunday?

A) 26°C

B) 27°C

C) 28°C

D) 29°C

Answer: C

21. The average of first 20 multiples of 2 is 21. Verify the sum.

A) 210

B) 420

C) 630

D) 840

Answer: B

22. The average of 10 numbers is 30. If 4 numbers with average 25 are replaced by 4 with average 35, new average?

A) 31

B) 32

C) 33

D) 34

Answer: C

23. The average weight of 9 people is 60 kg. If 3 more join with average 55 kg, new average?

A) 58 kg

B) 59 kg

C) 59.5 kg

D) 60 kg

Answer: B

24. The average of 5 numbers is 40. If the sum of first and last is 70, average of middle three?

A) 35

B) 40

C) 45

D) 50

Answer: B

25. The average of 12 months rainfall is 50 cm. If January to June average 40 cm, average of July to December?

A) 55 cm

B) 60 cm

C) 65 cm

D) 70 cm

Answer: B

26. The average of 15 numbers is 20. If 5 numbers with average 18 are removed, average of remaining 10?

A) 21

B) 21.5

C) 22

D) 22.5

Answer: C

27. The average age of 4 friends is 25 years. If one friend is 20 years old, average of other three?

A) 25

B) 26.67

C) 28

D) 30

Answer: B

28. The average of first 10 multiples of 3 is 16.5. Verify the sum.

A) 150

B) 165

C) 180

D) 195

Answer: B

29. The average of 7 numbers is 35. If two numbers 30 and 40 are added, new average?

A) 34

B) 35

C) 36

D) 37

Answer: B

30. The average marks of 30 students is 70. If 10 students with average 60 are absent, average of present students?

A) 72

B) 73

C) 74

D) 75

Answer: C

31. The average of 6 numbers is 24. If the average of first 4 is 22, average of last 2?

A) 26

B) 28

C) 30

D) 32

Answer: B

32. The average salary of 8 employees is Rs. 4000. If 2 new employees with average Rs. 4500 join, new average?

A) Rs. 4050

B) Rs. 4100

C) Rs. 4150

D) Rs. 4200

Answer: B

33. The average of 10 consecutive odd numbers is 21. What is the first number?

A) 11

B) 13

C) 15

D) 17

Answer: A

34. The average of 5 numbers is 50. If one number is increased by 10, new average?

A) 50

B) 52

C) 54

D) 56

Answer: B

35. The average age of a group of 12 people is 30 years. If 3 people with average age 25 years leave, new average?

A) 31

B) 31.25

C) 31.5

D) 32

Answer: C

36. The average of first n natural numbers is (n+1)/2 = 10. Find n.

A) 18

B) 19

C) 20

D) 21

Answer: B

37. The average of 9 numbers is 27. If one number is 18, average of remaining 8?

A) 28

B) 28.5

C) 29

D) 30

Answer: C

38. The average of 4 numbers is 35. If the numbers are in AP, what is the common difference?

A) 5

B) 10

C) 15

D) 20

Answer: B

39. The average of 20 numbers is 25. If the average of first 10 is 24, average of last 10?

A) 26

B) 27

C) 28

D) 29

Answer: A

40. The average marks of 50 students is 60. If top 10 have average 80, average of bottom 40?

A) 55

B) 56

C) 57

D) 58

Answer: C

41. The average of 8 numbers is 40. If two numbers 35 and 45 are removed, average of remaining 6?

A) 40

B) 41

C) 42

D) 43

Answer: A

42. The average temperature for 10 days is 25°C. If first 5 days average 24°C, average of last 5 days?

A) 26°C

B) 27°C

C) 28°C

D) 29°C

Answer: A

43. The average of first 15 multiples of 2 is 16. Verify the sum.

A) 210

B) 240

C) 270

D) 300

Answer: B

44. The average of 12 numbers is 30. If 4 numbers with average 28 are replaced by 4 with average 32, new average?

A) 30.67

B) 31

C) 31.33

D) 32

Answer: C

45. The average age of 15 people is 28 years. If 5 people with average 25 years leave, new average?

A) 29

B) 29.5

C) 30

D) 30.5

Answer: B

46. The average of 5 consecutive even numbers is 30. What is the largest number?

A) 32

B) 34

C) 36

D) 38

Answer: B

47. The average marks of 25 students is 70. If 5 students with average 60 are replaced by 5 with average 80, new average?

A) 72

B) 74

C) 76

D) 78

Answer: B

48. The average of ages of 6 friends is 25 years. If one friend is 20 years old, average of other five?

A) 25

B) 26

C) 27

D) 28

Answer: B

49. The average of first 12 multiples of 3 is 19.5. Verify the sum.

A) 210

B) 234

C) 258

D) 282

Answer: B

50. The average of 9 numbers is 36. If three numbers 30, 35, 40 are added, new average?

A) 35

B) 36

C) 37

D) 38

Answer: B

=== TOPIC: average, LEVEL: hard ===

1. The average of 5 numbers is 40. The variance of these numbers is 16. If one number is 50, what is the average of the other four?

A) 37.5

B) 38

C) 38.5

D) 39

Answer: A

2. The average monthly income of a family of 5 is Rs. 20000. If the income of the head increases by 20% and one member leaves, the new average is Rs. 21000. What was the leaving member's income?

A) Rs. 15000

B) Rs. 16000

C) Rs. 17000

D) Rs. 18000

Answer: B

3. The average of first n natural numbers is (n+1)/2. For n=20, if we exclude 10 numbers with average 10.5, what is the average of remaining 10?

A) 20.5

B) 21

C) 21.5

D) 22

Answer: C

4. The average marks of 50 students in math is 60. In science, it's 70. If the overall average in both subjects is 65, what is the total marks in math?

A) 3000

B) 3200

C) 3400

D) 3600

Answer: A

5. The average age of a class of 40 students is 15 years. The average age of boys is 16 years, girls 14 years. How many boys are there?

A) 15

B) 20

C) 25

D) 30

Answer: B

6. The average of 10 numbers is 25. The sum of squares is 6500. What is the standard deviation?

A) 5

B) 6

C) 7

D) 8

Answer: A

7. The average salary of 8 employees is Rs. 4000. If salaries are in AP with common difference Rs. 200, what is the salary of the highest earner?

A) Rs. 4600

B) Rs. 4800

C) Rs. 5000

D) Rs. 5200

Answer: B

8. The average of 12 numbers is 30. If the numbers are changed such that each increases by 5, new average?

A) 35

B) 36

C) 37

D) 38

Answer: A

9. The average of first 20 odd numbers is 20. If we take average of first 10 and last 10, what is the difference between their averages?

A) 10

B) 15

C) 20

D) 25

Answer: A

10. The average marks of 30 boys and 20 girls is 60. Boys' average is 65, girls' average is 52. Verify the total marks.

A) 3000

B) 3200

C) 3400

D) 3600

Answer: A

11. The average of 6 numbers is 42. The median is 40, mode is 45. What is the sum of the two smallest numbers?

A) 70

B) 75

C) 80

D) 85

Answer: C

12. The average age of a group is 30 years. After 10 years, it will be 40 years. How many members are there if one member's age is fixed at 20 years now?

A) 10

B) 15

C) 20

D) 25

Answer: C

13. The average of 15 numbers is 25. The sum of the first 5 is 100, last 5 is 150. Average of middle 5?

A) 20

B) 25

C) 30

D) 35

Answer: B

14. The average salary of 10 men and 5 women is Rs. 5000. Men's average is Rs. 5500, women's Rs. 4000. Total salary?

A) Rs. 65000

B) Rs. 70000

C) Rs. 75000

D) Rs. 80000

Answer: A

15. The average of 8 numbers is 35. If the numbers are in GP with common ratio 2, what is the first term?

A) 5

B) 6

C) 7

D) 8

Answer: C

16. The average of 20 students in test 1 is 60, test 2 is 70. Overall average 65. Number of students who took both tests?

A) 10

B) 15

C) 20

D) 25

Answer: B

17. The average of 4 numbers is 30. The numbers are a-d, a, a+d, a+2d. What is d?

A) 5

B) 6

C) 7

D) 8

Answer: A

18. The average of 10 numbers is 40. If 2 numbers are 30 and 50, average of remaining 8?

A) 40

B) 41

C) 42

D) 43

Answer: A

19. The average rainfall for 12 months is 50 cm. First 6 months 40 cm average, last 6 months average?

A) 55 cm

B) 60 cm

C) 65 cm

D) 70 cm

Answer: B

20. The average of 25 numbers is 30. If 5 numbers with average 25 are removed, average of remaining 20?

A) 31

B) 31.25

C) 31.5

D) 32

Answer: C

21. The average age of 5 members is 40 years. If the youngest is 30 and oldest is 50, average of middle three?

A) 38

B) 40

C) 42

D) 44

Answer: B

22. The average of first 30 natural numbers is 15.5. If we exclude numbers from 16 to 30, average of first 15?

A) 7.5

B) 8

C) 8.5

D) 9

Answer: B

23. The average marks of 40 students in 3 subjects is 60. Subject 1 average 55, subject 2 60, subject 3 average?

A) 65

B) 66

C) 67

D) 68

Answer: A

24. The average of 9 numbers is 45. The numbers are in AP with common difference 5. What is the middle number?

A) 40

B) 45

C) 50

D) 55

Answer: B

25. The average salary of 15 employees is Rs. 6000. If 5 senior employees with average Rs. 8000 leave, new average?

A) Rs. 5000

B) Rs. 5200

C) Rs. 5400

D) Rs. 5600

Answer: C

26. The average of 12 numbers is 28. If the sum of squares is 10000, what is the variance?

A) 16.67

B) 20

C) 25

D) 30

Answer: B

27. The average age of a class is 20 years. The average of boys is 22, girls 18. If there are 20 boys, how many girls?

A) 20

B) 25

C) 30

D) 35

Answer: A

28. The average of 7 numbers is 35. The median is 30, range is 20. What is the largest number?

A) 40

B) 45

C) 50

D) 55

Answer: C

29. The average of first n even numbers is n+1. For n=10, sum is 110. Verify.

A) Correct

B) Incorrect, 120

C) Incorrect, 130

D) Incorrect, 140

Answer: A

30. The average marks of 50 students is 70. Top 10 average 90, bottom 10 average 50. Average of middle 40?

A) 70

B) 72

C) 74

D) 76

Answer: A

31. The average of 6 numbers is 42. Numbers are a, a+d, a+2d, a+3d, a+4d, a+5d. What is d if average is 42?

A) 2

B) 3

C) 4

D) 5

Answer: A

32. The average salary of 20 workers is Rs. 5000. If wages increase by 10% for 10 workers, new average?

A) Rs. 5250

B) Rs. 5300

C) Rs. 5350

D) Rs. 5400

Answer: C

33. The average of 15 consecutive numbers starting from x is x+7. What is x?

A) 10

B) 11

C) 12

D) 13

Answer: B

34. The average of 10 numbers is 50. If the numbers are changed by adding 2 to each, new average?

A) 50

B) 52

C) 54

D) 56

Answer: B

35. The average age of 30 students is 16 years. If 10 students of average 14 years leave, new average?

A) 16.67

B) 17

C) 17.33

D) 18

Answer: B

36. The average of first n multiples of 5 is (n+1)*2.5. For n=8, sum is 180. Verify.

A) Correct

B) Incorrect, 200

C) Incorrect, 220

D) Incorrect, 240

Answer: A

37. The average of 13 numbers is 39. If one number is 26, average of remaining 12?

A) 40

B) 40.5

C) 41

D) 41.5

Answer: C

38. The average of 5 numbers in AP is 30. Common difference 4, first term?

A) 20

B) 22

C) 24

D) 26

Answer: B

39. The average of 20 numbers is 30. Average of first 10 is 28, last 10 average?

A) 32

B) 32.5

C) 33

D) 34

Answer: A

40. The average marks of 80 students is 65. Top 20 average 80, bottom 20 average 50. Average of middle 40?

A) 65

B) 67

C) 69

D) 71

Answer: A

41. The average of 10 numbers is 40. Sum of squares 16000. Standard deviation?

A) 20

B) 25

C) 30

D) 35

Answer: A

42. The average age of 12 people is 35 years. Average of 8 adults 40, children average?

A) 20

B) 25

C) 30

D) 35

Answer: B

43. The average of 9 numbers is 45. Median 40, mode 50. Sum of two extremes?

A) 80

B) 90

C) 100

D) 110

Answer: B

44. The average of first n natural numbers is (n+1)/2 = 15. Find n and sum.

A) n=29, sum=435

B) n=30, sum=465

C) n=31, sum=496

D) n=32, sum=528

Answer: A

45. The average marks of 60 students in two tests is 70. Test 1 average 65, test 2 average 75. Total marks in test 1?

A) 3600

B) 3900

C) 4200

D) 4500

Answer: B

46. The average of 8 numbers is 35. Numbers in GP ratio 3, first term?

A) 3

B) 4

C) 5

D) 6

Answer: C

47. The average of 25 students in exam 1 is 60, exam 2 is 70. Combined average 65. Students who took both?

A) 15

B) 20

C) 25

D) 30

Answer: C

48. The average of 6 numbers is 42. Numbers a-2d, a-d, a, a+d, a+2d, a+3d. What is d?

A) 2

B) 3

C) 4

D) 5

Answer: B

49. The average salary of 16 employees is Rs. 6000. If 4 seniors Rs. 8000 average leave, new average?

A) Rs. 5500

B) Rs. 5600

C) Rs. 5700

D) Rs. 5800

Answer: B

50. The average of 16 consecutive even numbers is 35. First number?

A) 18

B) 20

C) 22

D) 24

Answer: C

=== TOPIC: time and work, LEVEL: easy ===

1. A can do a piece of work in 10 days. How long will it take for B to do the same work if B is twice as fast as A?

A) 5 days

B) 10 days

C) 15 days

D) 20 days

ANSWER: A

2. If 5 men can do a work in 8 days, how many men are needed to do the same work in 5 days?

A) 6 men

B) 8 men

C) 10 men

D) 12 men

ANSWER: B

3. A alone can finish a work in 20 days, and B alone in 30 days. How long will they take together?

A) 10 days

B) 12 days

C) 15 days

D) 18 days

ANSWER: B

4. 12 workers can complete a job in 15 days. How many workers are needed for 10 days?

A) 15 workers

B) 18 workers

C) 20 workers

D) 24 workers

ANSWER: B

5. If a work is completed by 20 men in 12 days, how many days will 30 men take?

A) 6 days

B) 8 days

C) 10 days

D) 12 days

ANSWER: B

6. Pipe A fills a tank in 6 hours. How long will two such pipes take?

A) 2 hours

B) 3 hours

C) 4 hours

D) 6 hours

ANSWER: B

7. 4 taps can fill a cistern in 10 minutes. How long will 2 taps take?

A) 15 minutes

B) 20 minutes

C) 25 minutes

D) 30 minutes

ANSWER: B

8. A and B together complete a work in 6 days. If A alone takes 9 days, how long does B take alone?

A) 12 days

B) 15 days

C) 18 days

D) 21 days

ANSWER: C

9. 15 laborers finish a job in 20 days. How many laborers for 30 days?

A) 8 laborers

B) 10 laborers

C) 12 laborers

D) 15 laborers

ANSWER: B

10. One pipe fills a tank in 5 hours, another empties in 8 hours. Together, time to fill?

A) 20 hours

B) 25 hours

C) 30 hours

D) 40 hours

ANSWER: D

11. A finishes work in 15 days. B in 20 days. Together?

A) 6 days

B) 8 days

C) 9 days

D) 10 days

ANSWER: C

12. 6 machines make 360 units in 4 days. How many machines for 540 units in 5 days?

A) 8 machines

B) 9 machines

C) 10 machines

D) 12 machines

ANSWER: A

13. If 8 men build a wall in 12 days, how many days for 6 men?

A) 14 days

B) 16 days

C) 18 days

D) 20 days

ANSWER: B

14. Pipe A fills in 10 hours, B in 15 hours. Together?

A) 5 hours

B) 6 hours

C) 7 hours

D) 8 hours

ANSWER: B

15. 10 workers complete a task in 18 days. Workers for 15 days?

A) 10 workers

B) 12 workers

C) 15 workers

D) 18 workers

ANSWER: B

16. A and B do work in 12 days together. A alone 20 days. B alone?

A) 20 days

B) 25 days

C) 30 days

D) 35 days

ANSWER: C

17. 3 pipes fill a tank in 6 hours. Time for 2 pipes?

A) 8 hours

B) 9 hours

C) 10 hours

D) 12 hours

ANSWER: B

18. 20 boys dig a trench in 10 days. Boys for 8 days?

A) 20 boys

B) 25 boys

C) 30 boys

D) 35 boys

ANSWER: B

19. Work done by 5 men in 4 days equals 4 men in?

A) 4 days

B) 5 days

C) 6 days

D) 7 days

ANSWER: B

20. Tank filled by A in 8 hours, emptied by B in 12 hours. Net fill time?

A) 20 hours

B) 24 hours

C) 28 hours

D) 32 hours

ANSWER: B

21. 9 workers finish in 16 days. Workers for 12 days?

A) 10 workers

B) 12 workers

C) 14 workers

D) 16 workers

ANSWER: B

22. A and B together 10 days. B alone 15 days. A alone?

A) 15 days

B) 20 days

C) 25 days

D) 30 days

ANSWER: D

23. 4 taps fill in 20 minutes. Taps for 10 minutes?

A) 6 taps

B) 8 taps

C) 10 taps

D) 12 taps

ANSWER: B

24. 25 men build in 8 days. Men for 10 days?

A) 15 men

B) 20 men

C) 25 men

D) 30 men

ANSWER: B

25. Pipe fills in 4 hours. Two pipes?

A) 1 hour

B) 2 hours

C) 3 hours

D) 4 hours

ANSWER: B

26. 7 days by 10 men = 5 days by?

A) 12 men

B) 14 men

C) 16 men

D) 18 men

ANSWER: B

27. A alone 12 days, B alone 18 days. Together?

A) 6 days

B) 7 days

C) 8 days

D) 9 days

ANSWER: B

28. 16 workers in 9 days. Workers for 12 days?

A) 9 workers

B) 10 workers

C) 12 workers

D) 15 workers

ANSWER: C

29. Inlet pipe 6 hours, outlet 9 hours. Together?

A) 15 hours

B) 18 hours

C) 20 hours

D) 24 hours

ANSWER: B

30. 30 days by 20 men = 24 days by?

A) 20 men

B) 25 men

C) 30 men

D) 35 men

ANSWER: B

31. A and B 8 days together. A 12 days. B?

A) 18 days

B) 20 days

C) 24 days

D) 30 days

ANSWER: C

32. 5 pipes fill in 12 minutes. Pipes for 15 minutes?

A) 3 pipes

B) 4 pipes

C) 5 pipes

D) 6 pipes

ANSWER: B

33. 12 men in 15 days. Men for 10 days?

A) 15 men

B) 18 men

C) 20 men

D) 24 men

ANSWER: B

34. Work by 4 women in 6 days = 3 women in?

A) 6 days

B) 8 days

C) 9 days

D) 12 days

ANSWER: B

35. Pipe A 5 hours, B 10 hours. Together?

A) 3 hours

B) 4 hours

C) 5 hours

D) 6 hours

ANSWER: A

36. 18 boys paint in 12 days. Boys for 9 days?

A) 18 boys

B) 24 boys

C) 30 boys

D) 36 boys

ANSWER: B

37. A alone 25 days. With B, 10 days. B alone?

A) 12.5 days

B) 15 days

C) 20 days

D) 25 days

ANSWER: A

38. 8 taps fill in 15 minutes. Taps for 24 minutes?

A) 4 taps

B) 5 taps

C) 6 taps

D) 8 taps

ANSWER: B

39. 10 laborers 20 days. Laborers for 25 days?

A) 6 laborers

B) 8 laborers

C) 10 laborers

D) 12 laborers

ANSWER: B

40. Inlet 7 hours, outlet 14 hours. Net time?

A) 10 hours

B) 12 hours

C) 14 hours

D) 21 hours

ANSWER: C

41. 14 workers 7 days. Workers for 14 days?

A) 5 workers

B) 7 workers

C) 9 workers

D) 11 workers

ANSWER: B

42. A and B 15 days. B 25 days. A?

A) 25 days

B) 30 days

C) 35 days

D) 40 days

ANSWER: A

43. 6 men 12 days = 8 men in?

A) 7 days

B) 8 days

C) 9 days

D) 10 days

ANSWER: C

44. 3 pipes 4 hours. Pipes for 6 hours?

A) 1 pipe

B) 2 pipes

C) 3 pipes

D) 4 pipes

ANSWER: B

45. 20 days by 15 men = 12 days by?

A) 20 men

B) 25 men

C) 30 men

D) 35 men

ANSWER: B

46. A alone 16 days, B 24 days. Together?

A) 8 days

B) 9 days

C) 10 days

D) 12 days

ANSWER: B

47. 9 women weave in 10 days. Women for 15 days?

A) 5 women

B) 6 women

C) 7 women

D) 9 women

ANSWER: B

48. Tank filled by 4 pipes in 5 hours. Time for 10 pipes?

A) 1 hour

B) 2 hours

C) 3 hours

D) 4 hours

ANSWER: B

49. 25 workers 4 days. Workers for 5 days?

A) 15 workers

B) 20 workers

C) 25 workers

D) 30 workers

ANSWER: B

50. A and B 5 days. A 8 days. B?

A) 10 days

B) 12 days

C) 15 days

D) 20 days

ANSWER: D

=== TOPIC: time and work, LEVEL: medium ===

1. A, B and C can do a work in 6, 8 and 12 days respectively. A and B together do it in?

A) 3.43 days

B) 4 days

C) 4.5 days

D) 5 days

ANSWER: A

2. 12 men take 36 days to complete a work. How many more men needed to finish in 24 days?

A) 6 men

B) 8 men

C) 10 men

D) 12 men

ANSWER: A

3. Pipe A fills in 20 hours, B empties in 30 hours, C fills in 40 hours. All together?

A) 60 hours

B) 120 hours

C) 180 hours

D) Cannot fill

ANSWER: B

4. A finishes 1/3 work in 10 days. B finishes remaining in 20 days. Together?

A) 6 days

B) 7 days

C) 8 days

D) 9 days

ANSWER: C

5. 15 men complete a job in 20 days. In how many days can 25 men complete 50% of the job?

A) 4 days

B) 5 days

C) 6 days

D) 7 days

ANSWER: C

6. A and B work together for 3 days, then C joins for 4 days. If total work is 24 man-days, who did most?

A) A

B) B

C) C

D) Equal

ANSWER: C

7. Tank filled by A in 10 hours, B in 15 hours. If both open for 2 hours, then A alone to fill rest?

A) 5 hours

B) 6 hours

C) 7 hours

D) 8 hours

ANSWER: B

8. 8 men and 12 boys complete in 15 days. 6 men and 16 boys in 10 days. Ratio of 1 man to 1 boy?

A) 2:1

B) 3:1

C) 3:2

D) 4:1

ANSWER: C

9. A can do 20% in 5 days. B can do 25% in 5 days. Together for whole work?

A) 10 days

B) 12 days

C) 14 days

D) 16 days

ANSWER: B

10. Three pipes A, B, C fill in 20, 30, 60 minutes. If all open, time to fill?

A) 10 minutes

B) 12 minutes

C) 15 minutes

D) 18 minutes

ANSWER: B

11. Work worth 500 rupees done by A in 10 days. B gets 300 rupees for same work in 15 days. Who is efficient?

A) A

B) B

C) Equal

D) Cannot say

ANSWER: A

12. 5 men or 8 women do work in 12 days. In how many days 10 men and 16 women?

A) 3 days

B) 4 days

C) 5 days

D) 6 days

ANSWER: A

13. A starts work, after 2 days B joins, after 3 more C joins. Total 20 days. A alone?

A) 24 days

B) 30 days

C) 36 days

D) 40 days

ANSWER: B

14. Pipe fills 1/2 tank in 15 minutes. Inlet and outlet together fill 1/4 in 12 minutes. Inlet alone for full?

A) 20 minutes

B) 24 minutes

C) 30 minutes

D) 36 minutes

ANSWER: B

15. 9 laborers and 12 assistants finish in 16 days. 12 laborers and 18 assistants in 10 days. Ratio laborer:assistant?

A) 2:3

B) 3:2

C) 3:4

D) 4:3

ANSWER: A

16. A does 1/5 work, B 1/4, C 1/3. Remaining by all together?

A) 2 days

B) 3 days

C) 4 days

D) 5 days

ANSWER: A

17. Two pipes fill tank in 10 and 12 hours. Third pipe empties in 15 hours. All three time?

A) 60 hours

B) 120 hours

C) 180 hours

D) Cannot empty

ANSWER: C

18. A, B, C rates 3:4:5. Together complete in 20 days. C alone?

A) 30 days

B) 40 days

C) 50 days

D) 60 days

ANSWER: D

19. Work completed in 24 days by 12 men. If 8 men work 6 days, remaining man-days?

A) 120

B) 144

C) 168

D) 192

ANSWER: B

20. Pipe A and B fill in 8 hours together. A alone 12 hours. B alone?

A) 18 hours

B) 20 hours

C) 24 hours

D) 30 hours

ANSWER: C

21. 10 men work 12 hours a day for 18 days. Equivalent to 15 men 8 hours a day for?

A) 20 days

B) 24 days

C) 28 days

D) 32 days

ANSWER: B

22. A finishes work in 30 days. After 10 days, B joins and finish in 20 days total. B alone?

A) 25 days

B) 30 days

C) 35 days

D) 40 days

ANSWER: B

23. Cistern filled by A in 3 hours, B in 4 hours, C empties in 2 hours. A and B 1 hour, then C 1 hour, rest by A alone?

A) 1 hour

B) 1.5 hours

C) 2 hours

D) 2.5 hours

ANSWER: C

24. 6 men build wall in 30 days or 20 women in 50 days. 18 men and 10 women together?

A) 10 days

B) 12 days

C) 15 days

D) 20 days

ANSWER: A

25. A and B together 12 days. A works 3 days, then B 4 days, remaining together?

A) 5 days

B) 6 days

C) 7 days

D) 8 days

ANSWER: B

26. Pipes A, B fill 1/3 and 1/4 tank per hour. Together with C emptying 1/6 per hour, time for full?

A) 6 hours

B) 8 hours

C) 10 hours

D) 12 hours

ANSWER: D

27. Work done by 5 persons in 8 days = 6 persons in 7 days = x. Value of x?

A) 30

B) 35

C) 40

D) 45

ANSWER: C

28. A starts, B joins after 5 days, C after 10 days. Finish in 15 days total. A alone?

A) 20 days

B) 25 days

C) 30 days

D) 35 days

ANSWER: A

29. Tank capacity 240 liters. A fills 12 l/h, B 15 l/h, C empties 20 l/h. All open, time to fill?

A) 24 hours

B) 30 hours

C) 36 hours

D) 48 hours

ANSWER: A

30. 4 men and 6 boys do in 10 days. 3 men and 8 boys in 12 days. 1 man = ? boys

A) 2 boys

B) 3 boys

C) 4 boys

D) 5 boys

ANSWER: A

31. A does 40% in 10 days. B does 30% in 10 days. Together for rest 30%?

A) 4 days

B) 5 days

C) 6 days

D) 7 days

ANSWER: B

32. Three workers A, B, C rates 1:2:3. Time for C to do what A and B do in 12 days?

A) 3 days

B) 4 days

C) 5 days

D) 6 days

ANSWER: A

33. Pipe fills tank in 1 hour 20 minutes. Outlet rate 1/5 of inlet. Both open, time?

A) 2 hours

B) 2.5 hours

C) 3 hours

D) 4 hours

ANSWER: C

34. 20 men work first 10 days, then 25 men next 10 days. Total work if 30 men do in 20 days?

A) 2/3

B) 3/4

C) 4/5

D) 5/6

ANSWER: B

35. A and B together complete 3/4 work in 12 days. Remaining by C in 8 days. C alone for whole?

A) 24 days

B) 28 days

C) 32 days

D) 36 days

ANSWER: C

36. Cistern filled by two pipes in 20 minutes. One pipe alone 30 minutes. Other alone?

A) 45 minutes

B) 50 minutes

C) 60 minutes

D) 70 minutes

ANSWER: C

37. 12 men or 18 women or 24 children do in 20 days. 4 men, 6 women, 8 children together?

A) 30 days

B) 35 days

C) 40 days

D) 45 days

ANSWER: D

38. A works 2 days, rests 1. B works 1 day, rests 2. Together finish in 12 days. A alone?

A) 18 days

B) 20 days

C) 22 days

D) 24 days

ANSWER: A

39. Tank 450 liters. A 18 l/min, B 25 l/min, C 30 l/min empty. A and B 10 min, then C 5 min, rest by A?

A) 15 min

B) 20 min

C) 25 min

D) 30 min

ANSWER: B

40. Men complete job in 16 days. After 4 days, women join and finish in 12 days total. Women alone?

A) 20 days

B) 24 days

C) 28 days

D) 32 days

ANSWER: B

41. Pipes A, B, C rates 3:4:5 liters/min. Time for 120 liters together?

A) 2 minutes

B) 3 minutes

C) 4 minutes

D) 5 minutes

ANSWER: A

42. A does 1/6 work in 4 days. B 1/5 in 3 days. Together for 2/15 work?

A) 1 day

B) 1.5 days

C) 2 days

D) 2.5 days

ANSWER: C

43. 10 men 12 days or 15 women 18 days. 5 men and 10 women together?

A) 12 days

B) 15 days

C) 18 days

D) 20 days

ANSWER: B

44. Inlet fills 1/3 tank in 20 min. Outlet empties 1/4 in 15 min. Both for full tank?

A) 60 min

B) 90 min

C) 120 min

D) 150 min

ANSWER: C

45. A, B, C together 15 days. A and B 20 days. C alone?

A) 30 days

B) 40 days

C) 50 days

D) 60 days

ANSWER: D

46. Work 240 man-days. 12 men work 10 days, rest by 15 men?

A) 8 days

B) 10 days

C) 12 days

D) 14 days

ANSWER: A

47. Pipe A fills 20% in 1 hour. B empties 10% in 1 hour. Together for 50%?

A) 3 hours

B) 4 hours

C) 5 hours

D) 6 hours

ANSWER: B

48. 8 men and 12 boys 15 days = 6 men and 16 boys 10 days. 1 man = ? boys

A) 1.5 boys

B) 2 boys

C) 2.5 boys

D) 3 boys

ANSWER: B

49. A works 5 days, B 7 days, together 3 days. Total work man-days if A:B 2:3?

A) 80

B) 90

C) 100

D) 110

ANSWER: C

50. Three pipes fill tank in 30, 40, 60 min. Two fastest together?

A) 12 min

B) 15 min

C) 18 min

D) 20 min

ANSWER: A

=== TOPIC: time and work, LEVEL: hard ===

1. A, B, C rates 3:4:5. A finishes 1/3, B 1/4, remaining by all in 2 days. Total work?

A) 60 units

B) 72 units

C) 84 units

D) 96 units

ANSWER: B

2. 15 men 20 days or 25 women 30 days. x men and y women do in 12 days. If x=10, y=?

A) 15

B) 20

C) 25

D) 30

ANSWER: C

3. Pipe A fills 1/2 in 30 min, B empties 1/3 in 20 min. Both open, time for full?

A) 120 min

B) 150 min

C) 180 min

D) 210 min

ANSWER: A

4. A starts, after 8 days B joins for 12 days, then C for 6 days. Finish 360 man-days. A alone?

A) 24 days

B) 30 days

C) 36 days

D) 42 days

ANSWER: B

5. Workers A, B, C, D rates 1:2:3:4. Time for B and D to do A's 5 days work?

A) 2 days

B) 2.5 days

C) 3 days

D) 3.5 days

ANSWER: B

6. Tank 360 liters. A 12 l/h, B 18 l/h, C 24 l/h empty. Sequence: A 2h, B 3h, C 1h, rest A and B?

A) 4 hours

B) 5 hours

C) 6 hours

D) 7 hours

ANSWER: C

7. 12 men 18 days or 24 boys 36 days. 8 men, 12 boys, 6 girls if girl=1/2 boy?

A) 20 days

B) 24 days

C) 28 days

D) 32 days

ANSWER: B

8. A does 1/5 in 6 days. After that B joins, finish in 21 days total. B's rate if A's 1/3 B's?

A) 1/10 per day

B) 1/15 per day

C) 1/20 per day

D) 1/25 per day

ANSWER: B

9. Pipes A, B fill 3/10, 2/5 per hour. C empties 1/6. All open after A and B 1 hour each?

A) 4 hours

B) 5 hours

C) 6 hours

D) 7 hours

ANSWER: A

10. Contract 1200 man-days. 10 men work 20 days, then 15 men 10 days, rest by 12 men?

A) 30 days

B) 35 days

C) 40 days

D) 45 days

ANSWER: B

11. A, B, C together 12 days. A and C 15 days. B and C 20 days. A alone?

A) 10 days

B) 15 days

C) 20 days

D) 30 days

ANSWER: D

12. Inlet A 20 min for full, outlet B 1/3 rate of A. Both open 10 min, then A alone rest?

A) 15 min

B) 20 min

C) 25 min

D) 30 min

ANSWER: B

13. 5 men 12 days = 8 women 18 days = 10 children 20 days. 2 men, 3 women, 4 children together?

A) 24 days

B) 28 days

C) 32 days

D) 36 days

ANSWER: C

14. Work 1/2 by A in 10 days, 1/3 by B in 12 days. Remaining by C in 5 days. C's rate?

A) 1/15

B) 1/20

C) 1/25

D) 1/30

ANSWER: A

15. Tank filled by A in 4 hours, but leak empties 1/8 per hour. Effective time?

A) 4.5 hours

B) 5 hours

C) 5.5 hours

D) 6 hours

ANSWER: B

16. A works alternate days with B. Together equivalent to C alone in 12 days. If A=2B, C?

A) 8 days

B) 10 days

C) 12 days

D) 14 days

ANSWER: A

17. Pipes P, Q, R rates 5:6:7 l/min. Time for 210 liters by P and Q, then R alone rest?

A) 20 min

B) 25 min

C) 30 min

D) 35 min

ANSWER: C

18. 16 laborers 24 days or 32 assistants 48 days. 12 laborers and 16 assistants in?

A) 24 days

B) 28 days

C) 32 days

D) 36 days

ANSWER: A

19. A finishes 40%, B 30%, remaining by A, B, C in 4 days. If C= A+B, total time?

A) 15 days

B) 18 days

C) 20 days

D) 24 days

ANSWER: B

20. Cistern 600 liters. A 25 l/min, B 30 l/min, C 40 l/min empty. A 10 min, B 15 min, C 5 min, rest A and B?

A) 20 min

B) 25 min

C) 30 min

D) 35 min

ANSWER: B

21. Men:Women:Children 3:2:1. 15 men 20 days = 25 women 30 days = 45 children 45 days. 6 men, 4 women, 2 children?

A) 15 days

B) 18 days

C) 21 days

D) 24 days

ANSWER: C

22. A does work in 30 days. B joins after 10 days, finish in 25 days total. If B twice A, verify.

A) Correct

B) Incorrect, B=1.5A

C) Incorrect, B=2.5A

D) Incorrect, B=3A

ANSWER: A

23. Three inlets fill 1/2, 1/3, 1/4 tank per hour. Outlet 1/5. All open time?

A) 3 hours

B) 4 hours

C) 5 hours

D) 6 hours

ANSWER: D

24. Contract 900 units. 12 workers 15 units/day, after 20 days 15 workers join. Days to finish?

A) 30 days

B) 35 days

C) 40 days

D) 45 days

ANSWER: A

25. A, B, C rates x, 2x, 3x. Together 12 days. A and B 20 days. C alone for x work?

A) 4 days

B) 6 days

C) 8 days

D) 10 days

ANSWER: B

26. Tank 480 liters. Leak fills 1/10 per hour when empty, but empties 1/8 when full. A fills in 12 hours. Time with leak?

A) 13.33 hours

B) 14 hours

C) 15 hours

D) 16 hours

ANSWER: A

27. 10 A-type, 15 B-type do in 12 days. 12 A, 10 B in 15 days. 1 A = ? B

A) 1.2 B

B) 1.5 B

C) 1.8 B

D) 2 B

ANSWER: B

28. A works 3 days, B 4 days, C 5 days cycle. Total 60 days for 360 man-days. Efficiency?

A) A highest

B) B highest

C) C highest

D) Equal

ANSWER: C

29. Pipes A fills 1/5 h, B 1/6 h, C empties 1/4 h. A 1h, B 1h, then all 2h, rest by A?

A) 3 hours

B) 4 hours

C) 5 hours

D) 6 hours

ANSWER: B

30. 20 men 25 days or 30 women 40 days. p men and q women do in 20 days if p/q=2/3?

A) p=16, q=24

B) p=18, q=27

C) p=20, q=30

D) p=24, q=36

ANSWER: B

31. A does 1/4 in 5 days. B 1/5 in 4 days. C 1/6 in 3 days. Together for 1/60?

A) 1 day

B) 1.5 days

C) 2 days

D) 2.5 days

ANSWER: A

32. Four workers rates 2:3:4:5. Time for 3 and 4 to do 2's 8 days work?

A) 4 days

B) 5 days

C) 6 days

D) 7 days

ANSWER: B

33. Cistern filled 1/3 by A in 20 min. Leak empties 1/10 tank per 10 min. Effective rate?

A) 1/30 per min

B) 1/40 per min

C) 1/50 per min

D) 1/60 per min

ANSWER: A

34. 25 men 16 days or 40 boys 24 days. 15 men, 20 boys, 10 girls if girl=0.5 boy, days?

A) 18 days

B) 20 days

C) 22 days

D) 24 days

ANSWER: C

35. A and B together 10 days for 3/4 work. C joins, finish in 12 days total. C's share?

A) 1/12 per day

B) 1/15 per day

C) 1/18 per day

D) 1/20 per day

ANSWER: A

36. Three pipes fill rates 4:5:6. Two slowest together 30 min for 1/2 tank. Fastest alone rest?

A) 20 min

B) 25 min

C) 30 min

D) 35 min

ANSWER: B

37. Laborers:Assistants 5:3. 20 laborers 25 days = 30 assistants 50 days. 10 laborers 15 assistants?

A) 20 days

B) 25 days

C) 30 days

D) 35 days

ANSWER: B

38. A works 4 days on, 2 off. B 3 on, 3 off. Together equivalent to C in 30 days. A:B 3:2, C?

A) 12 days

B) 15 days

C) 18 days

D) 20 days

ANSWER: C

39. Tank 900 liters. A 30 l/min, B 45 l/min, C 60 l/min empty. A 15 min, B 10 min, C 5 min, rest A B C?

A) 10 min

B) 15 min

C) 20 min

D) 25 min

ANSWER: C

40. Men 20 days or women 30 days or children 60 days. 5 men, 10 women, 15 children together?

A) 20 days

B) 24 days

C) 28 days

D) 32 days

ANSWER: B

41. A, B, C, D rates 1:1.5:2:2.5. Group A B 12 days, C D 15 days. All four?

A) 6 days

B) 7 days

C) 8 days

D) 9 days

ANSWER: A

42. Work 1/3 by A in 8 days, 1/4 by B in 6 days. Remaining 5/12 by C in 5 days. Verify C rate.

A) 1/12 per day

B) 1/15 per day

C) 1/18 per day

D) 1/20 per day

ANSWER: A

43. 12 A-workers 18 days = 24 B-workers 27 days. 8 A and 16 B in?

A) 18 days

B) 20 days

C) 22 days

D) 24 days

ANSWER: D

44. Inlet fills 2/5 tank in 25 min. Outlet 1/3 tank in 20 min. Both open after inlet 10 min?

A) 30 min

B) 35 min

C) 40 min

D) 45 min

ANSWER: C

45. A B C together 18 days. A B 24 days. A C 30 days. B alone for 1/6 work?

A) 8 days

B) 10 days

C) 12 days

D) 15 days

ANSWER: C

46. Total work 480 man-hours. 8 men 6 hours/day for 10 days. Rest by 10 men 4 hours/day?

A) 8 days

B) 10 days

C) 12 days

D) 14 days

ANSWER: A

47. Pipe A 1/4 per hour, B 1/5, leak 1/20. After A B 30 min, leak opens. Time from start?

A) 2 hours

B) 2.5 hours

C) 3 hours

D) 3.5 hours

ANSWER: C

48. 10 men 12 boys 15 days = 8 men 18 boys 12 days. 6 men 24 boys in?

A) 10 days

B) 12 days

C) 14 days

D) 16 days

ANSWER: A

49. A B C cycle: A 2 days, B 3 days, C 4 days. 36 days total 720 units. Each rate?

A) A=10, B=15, C=20

B) A=12, B=18, C=24

C) A=15, B=20, C=25

D) A=20, B=25, C=30

ANSWER: A

50. Four pipes rates 5:6:7:8 l/min. Slowest two 20 min, fastest two 15 min. All four rest?

A) 10 min

B) 12 min

C) 15 min

D) 18 min

ANSWER: B