Seventh Grade - Ratio and Proportion

1) If the ratio of the ages of two friends A and B is in the ratio 3 : 5 and that of B and C is 3 : 5 and the sum of their ages is 147, then how old is B?

- 75 years
- 15 years
- 45 years
- 49 years

2) A and B together have $1210. If 4/15 of A's amount is equal to 2/5 of B's amount, how much amount does B have?

- $460
- $664
- $550
- $484

3) Two numbers are respectively 20% and 50% more than a third number. The ratio of the two numbers is?

- 6 : 7
- 4 : 5
- 3 : 5
- 2 : 5

4) A sum of money is to be distributed among A, B, C, D in the proportion of 5 : 2 : 4 : 3. If C gets $1000 more than D, what is B's share?

- $5000
- $1500
- None of these
- $2000

5) The ratio of the number of boys and girls in a college is 7 : 8. If the percentage increase in the number of boys and girls be 20% and 10% respectively, what will be the new ratio?

- 17 : 18
- 8 : 9
- Cannot be determined
- 21 : 22

6) If 40% of a number is equal to two-third of another number, what is the ratio of first number to the second number?

- 2 : 5
- 3 : 7
- 7 : 3
- 5 : 3

7) Two number are in the ratio 3 : 5. If 9 is subtracted from each, the new numbers are in the ratio 12 : 23. The smaller number is?

- 27
- 33
- 55
- 49

8) When 2,000 pounds of paper are recycled or reused, 17 trees are saved. How many trees are saved if 10,000 pounds of paper is recycled?

- 340
- 170
- 85
- 34

9) If it costs $90 to feed a family of 3 for one week, how much will it cost to feed a family of 5 for one week?

- $150
- $450
- $270
- $180

10) To make green paint, a painter mixes yellow paint and blue paint in the ratio of three to two. If he used twelve gallons of yellow paint, how much blue paint did he use?

- 7
- 8
- 4
- 2

11) A rectangle measures 40 cm at its length and 20 cm at its width. Find the ratio of the length to the width in lowest form?

- 1:2
- 8:5
- 4:6
- 2:1

12) When a bird flies, it beats its wings an average of 23 times in ten seconds. How many times will it beat its wings in two minutes?

- 138 times
- 230 times
- 276 times
- 146 times

13) Herman begins business with a capital of $50,000 and after 3 months takes Manu into partnership

with a capital of $75,000. Three months later Dhilip joins the firm with a capital of $1,25,000. At the end of the year the firm makes a profit of $99,495. How much of this sum should Dhilip receive?

- $49,747
- $59,495
- $33,165
- $36,850

14) If 6 men can lay 8 bricks in one day, then how many men are required to lay 60 bricks in the same time?

- 50 men
- 40 men
- 60 men
- 45 men

15) The cost of New Year party organized at a resort is directly related to the number of persons attending that party. If 10 persons attend the party the cost per head is $250 and if 15 people attend, the cost per head is $200. What will be the total cost of the party if 20 persons attend it?

- $150
- $180
- $100
- $250

16) A can do a piece of work in 12 days, B is 60% more efficient than A. Find the number of days required for B to do the same piece of work?

- 4.5 days
- 7.5 days
- 8.5 days
- 9.5 days

17) Ten years ago, the ratio of ages of A and B is 3 : 4, now, it is 4 : 5. What is the present age of A?

- 40 years
- 35 years
- 25 years
- 30 years

18) A sum fetched a total simple interest of $4016.25 at the rate of 9 % per annum in 5 years. What is the sum?

- $8032
- $8900
- $8925
- $4462

19) How much time will it take for an amount of $450 to yield $81 as interest at 4.5% per annum of simple interest?

- 4 years
- 3 years
- 2 years
- 5 years

20) A lent $5000 to B for 2 years and $3000 to C for 4 years on simple interest at the same rate of interest and received $2200 in all from both of them as interest The rate of interest per annum is?

- 5%
- 10%
- 8%
- 17%

21) A man took loan from a bank at the rate of 12% p.a. simple interest. After 3 years he had to pay $5400 interest only for the period. The principal amount borrowed by him was?

- $20,000
- $10,000
- $15,000
- $20,000

22) A car travels 150 km on 15 liters of petrol. What is the rate of petrol consumption in km per liter?

- 12 km/liter
- 15km/liter
- 17 km/liter
- 10 km/liter

23) A piece of aluminum is heated to 219°C and then left to cool. The temperature of the metal falls at a rate of 0.5°C per seconds for the first 3 minutes. Find the temperature of the metal after 3 minutes?

- 139°C
- 149°C
- 119°C
- 129°C

24) John found a telemarketing job at an hourly rate of $5. He is also paid an additional 5 cents for every additional call he makes after the first 500 calls. On a typical working day, John starts at 9 am and breaks for lunch at 1 pm. He continues work after 2 pm and stops at 6 pm. On that day he made a total of 700 calls. Assuming that he repeats this throughout the month, consisting of 20 working days, find John's salary for the month?

- $1300
- $1000
- $1250
- $1500

25) Gary drives 1273 km using his car. Given that petrol costs $2.18 per liter and his car travels 12 km on 1 liter of petrol, how much will he need to spend on petrol for the distance travelled? Leave your answer to the nearest cent

- $231.26
- $242.45
- $251.62
- $231.30

26) James can type 7 characters every 5 seconds on his computer. How many characters can he type in one minute?

- 84
- 35
- 420
- 12

27) The total cost of an advertisement in a newspaper is obtained by adding together a fixed charge of 50 cents and a charge of 15 cents per word. What is the total cost of an advertisement containing 13 words?

- $3.45
- $2.40
- $2.50
- $2.45

28) The total cost of an advertisement in a newspaper is obtained by adding together a fixed charge of 50 cents and a charge of 15 cents per word. Mohammad does not want to spend more than $4.00 on an advertisement. What is the greatest number of words Mohammad can use?

- 20
- 23
- 25
- 24

29) A construction worker works 40 hours in order to earn $150. Assuming the same rate of pay, how much he would earn in 16 hours?

- $80
- $60
- $70
- $50

30) A construction worker works 40 hours in order to earn $150. Assuming the same rate of pay, how many number of hours he would have worked to earn $67.50?

- 16
- 18
- 20
- 15