Quantitative Aptitude Previous Year Question & Answers

Let C1 and C2 be the inscribed and circumscribed circles of a triangle with sides 3cm,
4cm and 5cm then find the ratio between the areas of C1 and C2 is

a) 9/16

b) 9 / 25

c) 4 / 25

d) 16 / 25

Ans. c.

Explanation: Since, sides are 3, 4, and 5 cms. Therefore, triangle will be a right-angled triangle.

The radius of the inscribed circle C1 = (3 + 4 - 5)/2 = 1 cms.

The radius of the circumscribed circle C2=5/2=2.5 cms. (because in this case, the hypotenuse will be the diameter of the circumscribed circle.

Area C1/ Area C2 = $pi^* (1)^2/pi^*(2.5)^2 = 100/625 = 4/25;$



2. If $x = 1/(\sqrt{2} + 1)$; then (x + 1) equals to ?

a) 2

b) √2-1

c) √2+1

d) √2

Ans. d.

Explanation:

$$x = \frac{1}{\sqrt{2} + 1}; \Rightarrow x = \frac{\sqrt{2} - 1}{(\sqrt{2} + 1)(\sqrt{2} - 1)} = \sqrt{2} - 1$$
$$x + 1 = \sqrt{2} - 1 + 1 = \sqrt{2};$$

Directions/ In Question nos. / 3 to 5, The pie-chart given here shows expenditure incurred by a family on various items and their savings. Study the chart and answer the questions based on the pie-chart.



3. If the monthly income is Rs. 36000 then the yearly savings is:

a) Rs. 72000

b) Rs. 60000

c) Rs. 74000

d) Rs. 70000

Ans. a.

Explanation: Savings = 60;

Monthly Savings = (60/360)*36000 = Rs. 6000.

Yearly savings = 12*6000 = Rs. 72000.

4. If the expenditure on education is Rs. 1600 more than that of housing then the expenditure on food is:

a) Rs. 6000

b) Rs. 12000

c) Rs. 7000

d) Rs. 3333

Ans. b.

Explanation: Expenditure on education= 70

Expenditure on housing = 54

Difference between expenditure on education and housing = 70 - 54 = 16;

Monthly expenditure on education= $(16/360)^*$ Monthly income;

Monthly income = (1600 * 360)/16 = Rs. 36000

Hence, the expenditure of food = (120*36000)/360 = 12000;

5. The ratio of expenditure on food to savings is:

a) 2 : 1

b) 3 : 1

c) 3 : 2

d) 10 : 9

Ans. a.

Explanation: The required ratio = 120/60 = 2: 1;

6. The average marks obtained by a student in 6 subjects is 88. On subsequent verification it was found that the marks obtained by him in a subject was wrongly copied as 86 instead of 68. The correct average of the marks obtained by him is-

a) 85

b) 87

c) 84

d) 86

Ans. a.

Explanation: Suppose, these 6 subjects are S1, S2, S3,...., S6;

S1 + S2 + S3 + + S6 = 88*6 = 528;

The actual sum of marks in all subjects = 528 - 86 + 68 = 510;

Hence, the correct average marks = 510/6 = 85;

Directions / **In Question nos.** / **7 to 10,** Given here a multiple bar diagram of the scores of four players in two innings. Study the diagram and answer the questions.

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7. The average run of two Innings of the player who scored highest in average is:

a) 75

b) 85

c) 80

d) 70

Ans. d.

Explanation: From the figure, it can be seen lucidly that Mahendra Singh Dhoni has scored the maximum runs. Hence,

The average runs scored by MS Dhoni = (60 + 80)/2 = 70.

8. The average run in two innings of the player who has scored minimum at the second innings is:

a) 50

b) 60

c) 40

d) 30

Ans. c.

Explanation: Cheteshwar Pujara scored the lowest marks in the second innings.

Hence, the average runs scored by him = (70 + 10)/2 = 40.

9. The average score in second innings contributed by the four players is:

a) 30

- b) 60
- c) 40

d) 50

Ans. c.

Explanation: Average run scored by all four player in second inning = (80 + 50 + 10 + 20)/4 = 40

1. The total scores in the first innings contributed by the four players is:

a) 220

b) 200

c) 210

d) 190

Ans. c.

Explanation: The total scores in the first innings by all four players = (60 + 50 + 70 + 30) = 210;