

Mathematics

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(Chapter - 10) (How Quantities Combine: Understanding Data) (Assignment 1)

(Class - 9)

Name _____

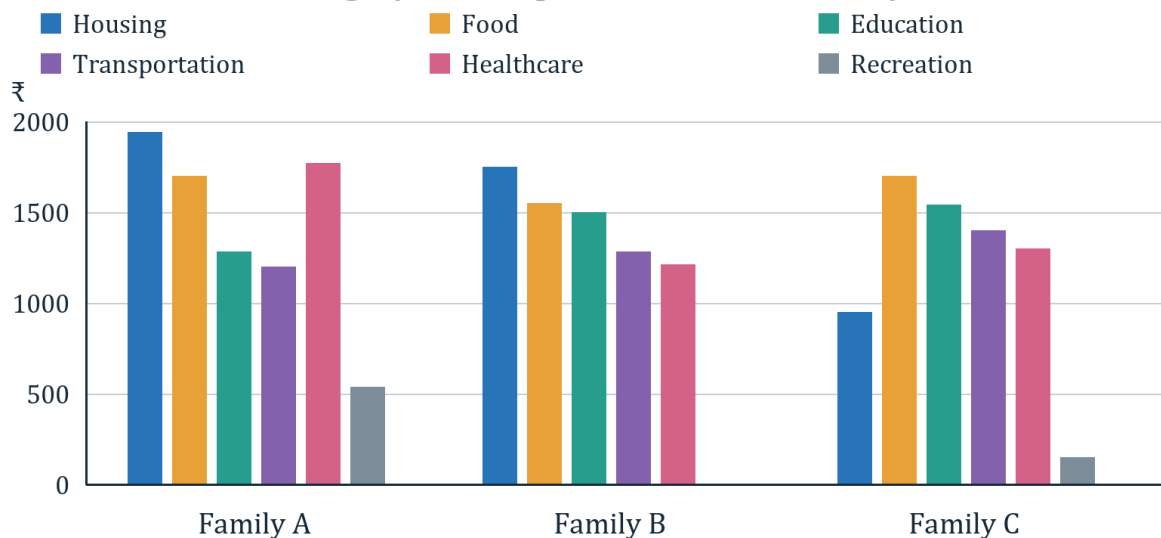
Date _____

Answer all 15 questions. Choose one option for each MCQ. Show your working and give reasons where required.

Section A: Multiple Choice Questions

- Two glasses of equal quantities of lemonade are prepared. One glass has 10% jaggery and the other has 20% jaggery. If we mix the lemonade from both glasses, what is the concentration of jaggery in the mixture?
(a) 10% (b) 15%
(c) 20% (d) 30%
- A farmer mixes three equal quantities of fertilisers. The first one contains $\frac{1}{10}$ nitrogen, the second contains $\frac{9}{50}$ nitrogen, and the third contains $\frac{3}{60}$ nitrogen. What is the fraction of nitrogen in the mixture?
(a) $\frac{11}{100}$ (b) $\frac{33}{100}$
(c) $\frac{1}{10}$ (d) $\frac{9}{50}$
- In cricket, the run rate is the average number of runs scored per over. In a T20 match, a team scored 6 runs in the first over making the run rate 6.
(i) In the second over they scored 12 runs. What is the run rate now?
(a) 6 runs per over (b) 8 runs per over
(c) 9 runs per over (d) 12 runs per over
- Which family spent the least on housing?

Category-wise expenditure of each family



- (a) Family A (b) Family B
(c) Family C (d) All three equally

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5. Two groups have different numbers of observations. Which weights should be used to combine their means into the mean of all observations?

- (a) The group means
(b) The group sizes
(c) Equal weights of 1
(d) The largest observations

Section B: Very Short Answer Questions

6. In a badminton academy, there is a group of 11 trainees — 8 seniors and 3 juniors. Their heights and average heights (in cm) are given in the table below. Find the average height of the whole group.

Group	Heights (cm)	Average (cm)
Seniors	165, 169, 164, 167, 170, 159, 164, 166	165.5
Juniors	146, 149, 153	149.33

Answer:

7. The average rainfall per day in the months of May, June, and July in a certain location are 3.5 mm, 10 mm and 8.7 mm respectively. Write an expression that gives their combined average.

Answer:

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8. (ii) Find out how many male langurs are present.

	Male langurs	Female langurs	All langurs
Average weight	16.5 kg	13.8 kg	14.925 kg
Number of langurs			60

Answer:

9. Shreyas holds 25 shares of a company at an average price of ₹150 and Vaishnavi holds 5 shares of the same company at an average price of ₹150.

(i) Shreyas buys 10 shares of this company at a price of ₹30 each. What is the average price per share for him after the purchase?

Answer:

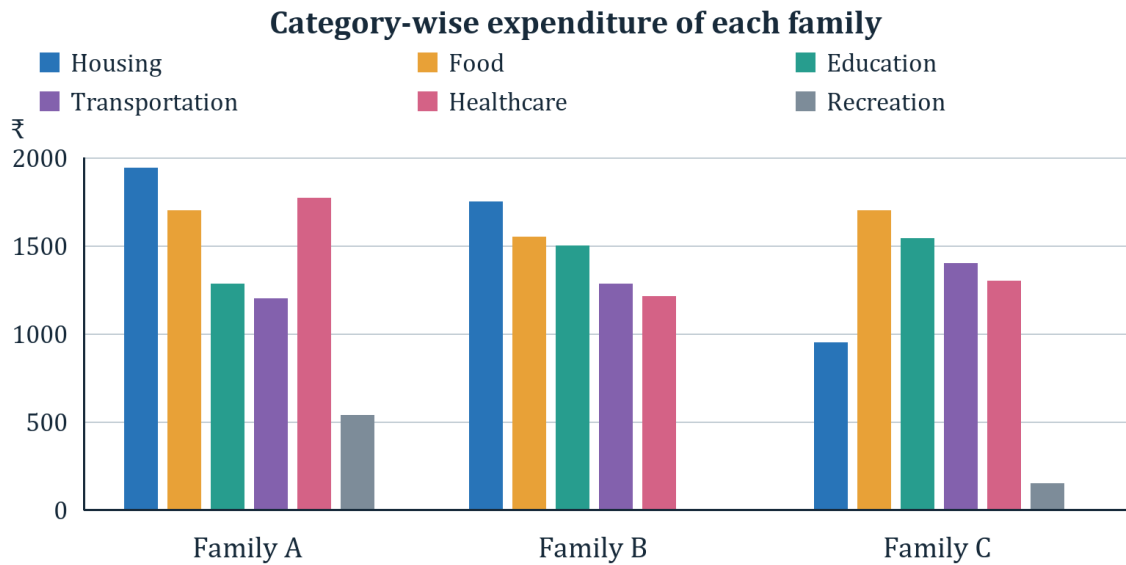
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10. Approximately how much did Family A spend on education?



Answer:

Section C: Short and Long Answer Questions

11. A stationery shop owner made ₹8000 selling books, of which 30% is the profit amount, and ₹1000 selling book covers, of which 50% is the profit amount. What is the percentage of profit on the total sales?

Answer:

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Answer:

Answer:

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- | | Test | ODI | T20 |
|----------|------|-----|-----|
| Home | 62 | 100 | 32 |
| Overseas | 172 | 49 | 71 |

■ Test ■ ODI ■ T20



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- Answer:**