

Sample Paper For Math Mastery Competition-2020



Instructions to participants

1. Do not open the booklet until you are told to do so.
2. Attempt ALL 100 questions.
3. Fill your answers neatly in the Bubble Sheet provided.
4. All figures are not drawn to scale.
5. Use of calculator is not allowed.
6. There are 30 questions in Section I carry 1 mark each, 40 questions in Section II carry 1 mark each and 30 questions in Section III carry 1 mark each.

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Rough Work

Section – I

- Q1: The successor of 2345 is:
A) 2343 B) 2344 C) 2345 **D) 2346**
- Q2: The product of two numbers is 750, LCM is 150 and ____ is their HCF.
A) 1 B) 3 C) **5** D) 7
- Q3: To reduce a fraction to the lowest term, divide it by:
i. the LCM of the numerator and denominator
ii. only one of the common factors of the numerator and the denominator
iii. one of the common multiples of the numerator and the denominator
iv. the HCF of the numerator and denominator
A) i, ii and iii are true. B) ii,iii and iv are true.
C) **iv is true.** D) i,iii and iv are true.
- Q4: The place-value of underline number in 100.253 is:
i. tens ii. tenths iii. hundreds iv. hundredths
A) i, is false. B) i and ii are false.
C) i,ii and iv are false. **D) i, ii and iii are false.**
- Q5:
- .
- .
- .
- Q30: The decimal in the number 84.567 is read as:
A) Eight four decimal five hundred and sixty seven
B) Eighty-four decimal five hundred and sixty seven
C) Eight four decimal five six seven
D) **Eighty-four decimal five six seven**

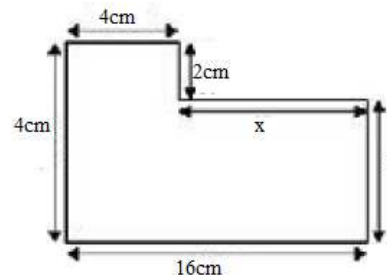
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Rough Work

SECTION – II

Q31: In the given figure what is $x + y$?



A) 20 cm

B) 22 cm

C) 24 cm

D) 25cm

Q32: Simplify $4\{6x - (7 - 6y + 5x) + 7y\}$

A) $-48x + 77y - 47$

B) $4x + 52y - 28$

C) $11x + 48y - 17$

D) $19x + 62y - 43$

Q33: The average arithmetic mean of 8, 12, 15, 21, x and 11 is 17.

Which means that _____ is the value of x .

A) 3

B) 15

C) 17

D) 35

Q34: The method which we use to find out the prime factors of a number is called:

i. prime factorization

ii. co-multiple

iii. common factors

iv. Ven Diagram Method

A) i, is false.

B) i and ii are false.

C) i,ii and iv are false.

D) ii, iii and iv are false.

Q35:

Q36:

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Q71: We measure _____ in seconds.

A) length

B) time

C) volume

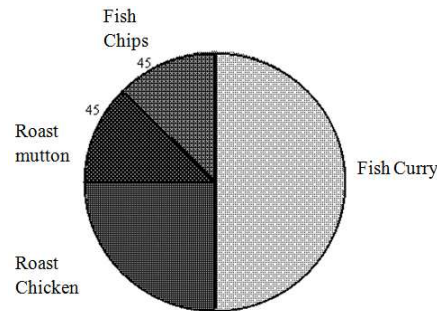
D) mass

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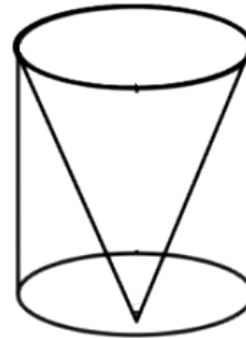
SECTION – III

Q71: Use the pie chart to answer the question below:
If there are 48 students in the class, how many students like roast chicken.



- A) 6 B) 10
C) 12 D) 24

Q72: In the given diagram, the cone and cylinder have same height and diameter. If the volume of the cylinder is 90 cm^3 , then the volume of the cone would be:



- A) 60 cm^3 B) 30 cm^3
C) 120 cm^3 D) 15 cm^3

Q73: $x^2 + \frac{1}{x^2} = 38$, $x - \frac{1}{x}$ is equal to:

- A) 4 B) 3 C) 6 D) 13

Q74: Find the wrong number in the series below.

125, 123, 120, 115, 108, 88

- i. 125 ii. 108 iii. 88 iv. 115
A) i, is false. B) i and ii are false.
C) i,ii and iv are false. D) ii, iii and iv are false.

Q75:

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. .
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Q 100: The ____ number should be added to 445 so that sum is completely divisible by 6.

- A) 4 B) 3 C) 2 D) 1

Rough Work