CTET Mathematics Practice Test

Paper I (For Classes I–V)

General Instructions

Practice Test - 03

1. This paper contains a total of **30 questions**.
2. All questions are **compulsory**.
3. Each question carries **1 mark**.
4. There is **no negative marking**.
5. The maximum marks for this test are **30**.
6. The total duration of the test is **45 minutes**.
7. Choose the most appropriate answer from the given options.
8. Use of calculators, mobile phones, or any electronic devices is **not permitted**.
9. Rough work may be done on the space provided at the end of the paper.
10. Read each question carefully before answering.

All the Best!

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1. The sum of the place values of 4s in the number 4,24,341 is:

(a) 44000
(b) 40040
(c) 40400
(d) 44004

2. How many whole numbers lie between 63 and 97 which are divisible by both 3 and 7?

(a) 3

(b) 4

(c) 5

(d) 6

3. The sum of first 15 odd natural numbers is:

(a) 120

(b) 200

(c) 225

(d) 240

4. A number when divided by 13 leaves a remainder of 7. What will be the remainder if the same number is multiplied by 4 and then divided by 13?

(a) 8

(b) 9

(c) 10

(d) 11

5. The product of two consecutive even numbers is 288. What are the numbers?

(a) 14 and 16

(b) 16 and 18

(c) 18 and 20

(d) 20 and 22

6. Simplify: $3\frac{1}{2} + 4\frac{3}{4} - 2\frac{1}{3}$.

(a) $5\frac{11}{12}$

(b) $6\frac{1}{12}$

(c) $5\frac{7}{12}$

(d) $6\frac{7}{12}$

7. The least number that must be added to 6452 to make it exactly divisible by 9 is:

(a) 3

(b) 5

(c) 6

(d) 7

8. A wire 180 m long is to be cut into equal pieces of maximum possible length, such that each piece is a whole number in meters and the total number of pieces is more than 2 but less than 8. The length of each piece is:

(a) 60 m

(b) 45 m

(c) 36 m

(d) 30 m

9. A train travels 60 km at a speed of 30 km/h and the next 60 km at a speed of 20 km/h. Find the average speed of the train.

(a) 24 km/h

(b) 25 km/h

(c) 26 km/h

(d) 27 km/h

10. The sum of two fractions is $\frac{5}{6}$ and their difference is $\frac{1}{6}$. Find the fractions.

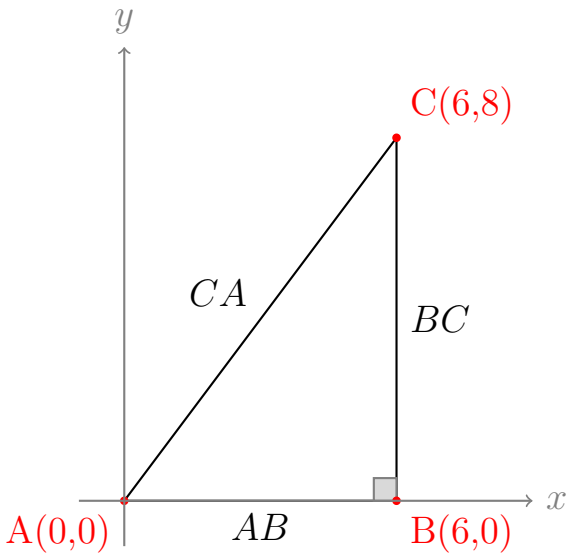
(a) $\frac{1}{2}$ and $\frac{1}{3}$

(b) $\frac{2}{3}$ and $\frac{1}{2}$

(c) $\frac{2}{3}$ and $\frac{1}{3}$

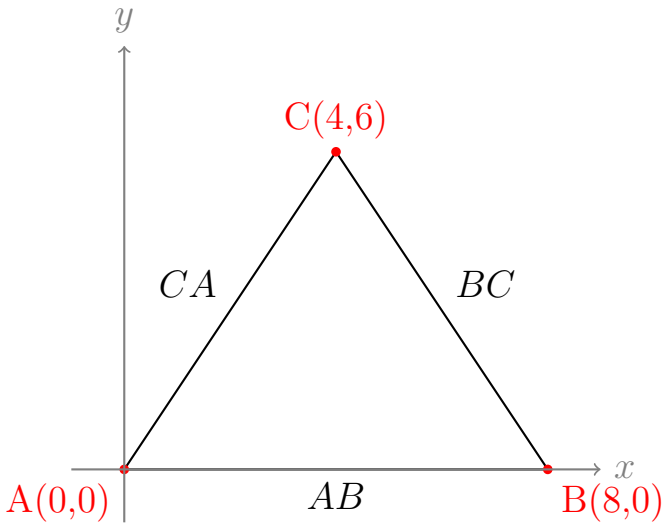
(d) $\frac{3}{4}$ and $\frac{1}{12}$

11. In a coordinate plane, points A(0,0), B(6,0), and C(6,8) form a right triangle. Find the length of the median drawn from vertex C.



(a) 5
(b) 6
(c) 7
(d) 8

12. A triangle has vertices at A(0,0), B(8,0), and C(4,6). Find the coordinates of the centroid.



(a) (3,2)
(b) (4,2)
(c) (4,3)
(d) (2,4)

13. A circle has its center at O(3,2) and passes through P(3,6). Find its radius.

(a) 3 units

(b) 4 units

(c) 5 units

(d) 6 units

14. The perimeter of a square and a rectangle are equal. The rectangle's sides are 12 cm and 8 cm. Find the side of the square.

(a) 9 cm

(b) 10 cm

(c) 8 cm

(d) 11 cm

15. The volume of a cube is 512 cm^3. Find its surface area.

(a) 256 cm^2

(b) 384 cm^2

(c) 512 cm^2

(d) 640 cm^2

16. If 9 men can do a piece of work in 15 days, in how many days will 15 men do the same work?

(a) 6

(b) 8

(c) 9

(d) 10

17. A cuboid measures 10 cm $\times$ 6 cm $\times$ 4 cm. Find its total surface area.

(a) 148 cm^2

(b) 164 cm^2

(c) 208 cm^2

(d) 232 cm^2

18. A clock shows 2:50. The angle between the hour and minute hands is:

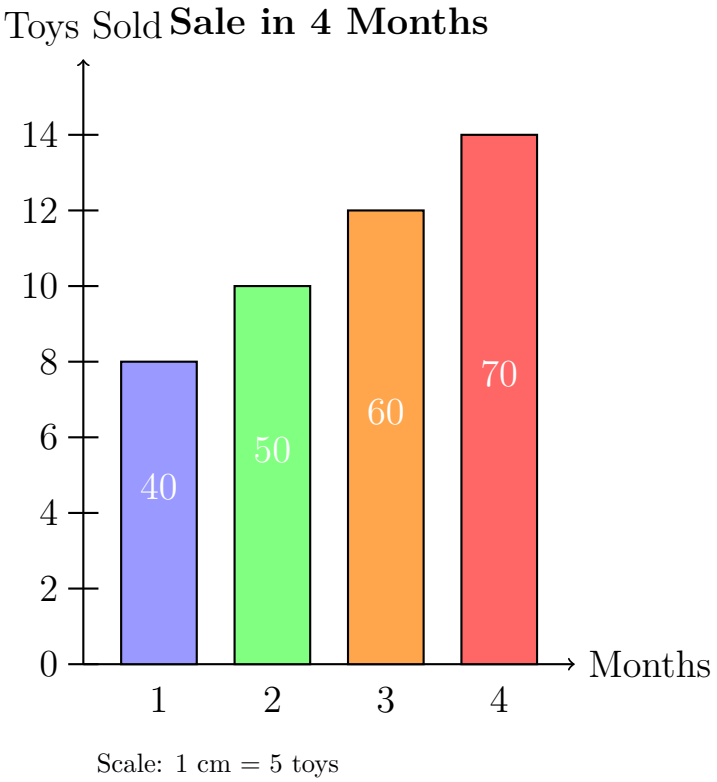
(a) 115 degrees

(b) 120 degrees

(c) 125 degrees

(d) 130 degrees

19. In a bar graph showing the number of toys sold in 4 months, the heights of bars are 8 cm, 10 cm, 12 cm, and 14 cm, each cm representing 5 toys. What is the total number of toys sold?



(a) 220

(b) 230

(c) 240

(d) 250

20. Observe the pattern: 1, 3, 6, 10, 15, 21, ... The 8th term will be:

(a) 28

(b) 30

(c) 34

(d) 36

21. Which of the following sets represents the correct relationship?

(a) Rectangle $\subset$ Square $\subset$ Quadrilateral

(b) Square $\subset$ Rectangle $\subset$ Quadrilateral

(c) Quadrilateral $\subset$ Rectangle $\subset$ Square

(d) Square $\subset$ Rhombus $\subset$ Quadrilateral

22. Find the missing number in the series: 6, 12, 24, 48, ?, 192.

(a) 60

(b) 72

(c) 96

(d) 120

23. Which of the following best describes the constructivist approach in mathematics teaching?

(a) Emphasis on memorizing formulas

(b) Teacher explains and students listen

(c) Learners actively construct their own understanding

(d) Use of repetitive practice

24. Diagnostic testing in mathematics is used to:

(a) Classify students into groups

(b) Identify learning gaps and misconceptions

(c) Conduct annual grading

(d) Provide extra marks to weak students

25. A child says "2 + 3 = 5 and 3 + 2 = 5, both are same." This reflects understanding of:

(a) Associative property

(b) Commutative property

(c) Distributive property

(d) Identity property

26. A teacher uses paper folding to teach fractions. This approach promotes:

(a) Abstract reasoning directly

(b) Rote memorization

(c) Conceptual understanding through visualization

(d) Procedural fluency only

27. While introducing the concept of multiplication, the most appropriate activity is:

(a) Repeated subtraction

(b) Equal grouping with real objects

(c) Memorization of tables

(d) Mental computation drills

28. Continuous and comprehensive evaluation in mathematics focuses on:

(a) Judging memory power

(b) Encouraging rote practice

(c) Assessing understanding, skills, and attitude

(d) Promoting competition among students

29. A teacher asks students to represent "3 + 4" using counters or dots before using symbols. This process follows:

(a) Abstract → Concrete → Symbolic

(b) Concrete → Pictorial → Abstract

(c) Symbolic → Pictorial → Concrete

(d) Abstract → Pictorial → Concrete

30. Which of the following best ensures inclusion in a mathematics classroom?

(a) Giving identical tasks to all

(b) Using differentiated strategies based on learner needs

(c) Allowing only fast learners to answer

(d) Using one fixed method for all