

CTET Mathematics Practice Test

Paper I (For Classes I–V)

General Instructions

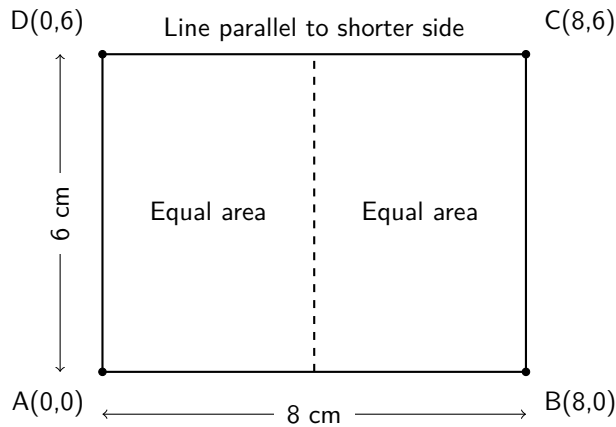
Practice Test - 16

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!

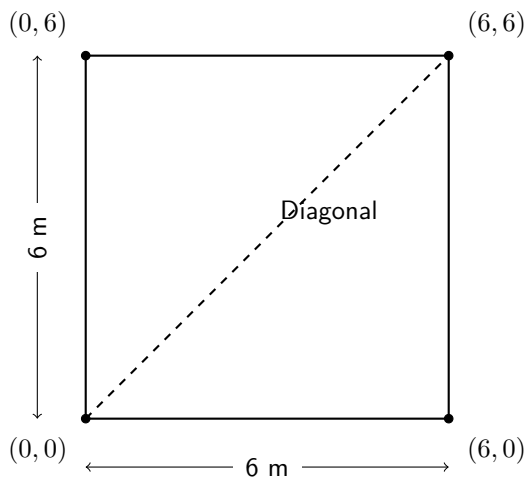
1. Which of the following numbers is divisible by both 3 and 5 but not by 9? (A) 90 (B) 45 (C) 120 (D) 150
2. If 7 pencils cost Rs. 35, how many pencils can be bought for Rs. 60 at the same rate? (A) 10 (B) 11 (C) 12 (D) 13
3. The sum of three consecutive even numbers is 108. What is the middle number? (A) 34 (B) 36 (C) 38 (D) 40

4. A rectangle has length 8 cm and breadth 6 cm. If a line parallel to its shorter side divides it into two equal areas, what is the coordinate of the line assuming rectangle vertices are at $(0,0)$, $(8,0)$, $(8,6)$, $(0,6)$?



- (A) $y = 3$ (B) $x = 3$ (C) $y = 2$ (D) $x = 2$
5. A cube of side 5 cm is painted on all its faces and cut into 1 cm small cubes. How many cubes will have exactly one face painted? (A) 54 (B) 96 (C) 100 (D) 150
6. If $\frac{3}{5}$ of a number equals 48, what is $\frac{7}{10}$ of the same number? (A) 56 (B) 70 (C) 72 (D) 80
7. Which of the following represents an even prime number? (A) 1 (B) 2 (C) 3 (D) 5
8. A circle is drawn with center $O(0,0)$ and radius 5 cm. A chord AB passes through the point $(3,4)$. What is the length of the chord? (A) 6 cm (B) 8 cm (C) 9 cm (D) 10 cm
9. A teacher divides 45 students into groups of equal size. If each group has more than 5 and fewer than 10 students, how many groups are formed? (A) 5 (B) 6 (C) 7 (D) 8
10. The perimeter of a square and a rectangle are equal. If the square has side 8 cm and the rectangle has length 10 cm, what is the breadth of the rectangle? (A) 6 cm (B) 8 cm (C) 10 cm (D) 12 cm
11. A train travels 60 km in 1 hour 15 minutes. What is its speed in km per hour? (A) 48 km/h (B) 60 km/h (C) 64 km/h (D) 80 km/h
12. The sum of all even numbers between 1 and 50 is: (A) 650 (B) 624 (C) 600 (D) 625

13. Which of the following best describes the main purpose of using concrete materials in teaching mathematics to primary children? (A) To make lessons interesting (B) To encourage rote memorization (C) To help children visualize abstract ideas (D) To reduce teacher's effort
14. A student repeatedly adds instead of multiplying in word problems. The teacher should primarily: (A) Punish the student for carelessness (B) Give more practice in tables (C) Use manipulatives to reinforce the concept of multiplication as repeated addition (D) Move to higher topics quickly
15. The faces of a cuboid are coloured such that no two adjacent faces have the same colour. How many colours are required at minimum? (A) 2 (B) 3 (C) 4 (D) 6
16. A clock shows 3:15. What is the smaller angle between the hour and minute hands? (A) 37.5° (B) 42.5° (C) 45° (D) 47.5°
17. The capacity of a tank is 250 liters. If water flows in at 5 liters per minute, how long will it take to fill the tank? (A) 40 minutes (B) 45 minutes (C) 50 minutes (D) 55 minutes
18. A square field has vertices at (0,0), (0,6), (6,6), (6,0). A diagonal is drawn from (0,0) to (6,6). What is its length?



- (A) 6 cm (B) $6\sqrt{2}$ cm (C) 12 cm (D) $12\sqrt{2}$ cm
19. Which of the following learning strategies encourages children to construct mathematical understanding by themselves? (A) Lecture method (B) Drill and practice (C) Activity-based learning (D) Recitation method

20. A pictograph shows the number of apples sold in 4 days. If each picture of an apple represents 5 apples and the chart shows 8 apples for Monday, how many apples were sold on Monday? (A) 8 (B) 13 (C) 20 (D) 40
21. Which of the following statements about formative assessment is true? (A) It is used only at the end of a term (B) It helps monitor learning continuously (C) It discourages peer learning (D) It focuses only on marks
22. A cone and a cylinder have the same base radius and height. The ratio of their volumes is: (A) 1:2 (B) 1:3 (C) 2:3 (D) 3:1
23. Which property of addition is shown by: $12 + (15 + 8) = (12 + 15) + 8$? (A) Commutative (B) Associative (C) Distributive (D) Identity
24. A triangle has vertices A(0,0), B(6,0), and C(3,6). The midpoint of side BC is: (A) (3,3) (B) (4.5,3) (C) (3,6) (D) (4,4)
25. A shopkeeper buys 120 pencils for Rs. 480 and sells them at Rs. 5 each. What is the gain or loss percent? (A) 20
26. Which of the following best represents reflective teaching in mathematics? (A) Memorizing procedures from textbook (B) Re-examining one's teaching approach after class (C) Relying only on direct instruction (D) Avoiding discussion with peers
27. A teacher introduces fractions by dividing a pizza among students. This method demonstrates: (A) Constructivist approach (B) Behaviourist approach (C) Lecture-based method (D) Abstract learning
28. The difference between the largest 5-digit number and the smallest 5-digit number is: (A) 89999 (B) 89990 (C) 89900 (D) 90000
29. The outer boundary of a semicircular garden with diameter 14 m (excluding base) is: (A) 22 m (B) 21 m (C) 24 m (D) 44 m
30. Which of the following is the most effective way to assess problem-solving skills in mathematics? (A) Objective-type questions only (B) Asking to recall formulas (C) Open-ended questions with reasoning (D) Rote memorization tests