

CTET Mathematics Practice Test
Paper I (For Classes I–V)

General Instructions

Practice Test - 08

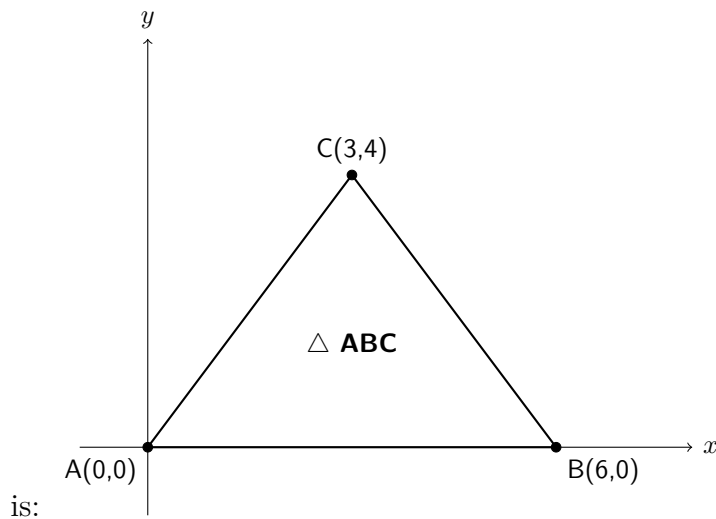
1. This paper contains a total of **30 questions**.
2. All questions are **compulsory**.
3. Each question carries **1 mark**.
4. There is **no negative marking**.
5. The maximum marks for this test are **30**.
6. The total duration of the test is **45 minutes**.
7. Choose the most appropriate answer 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!

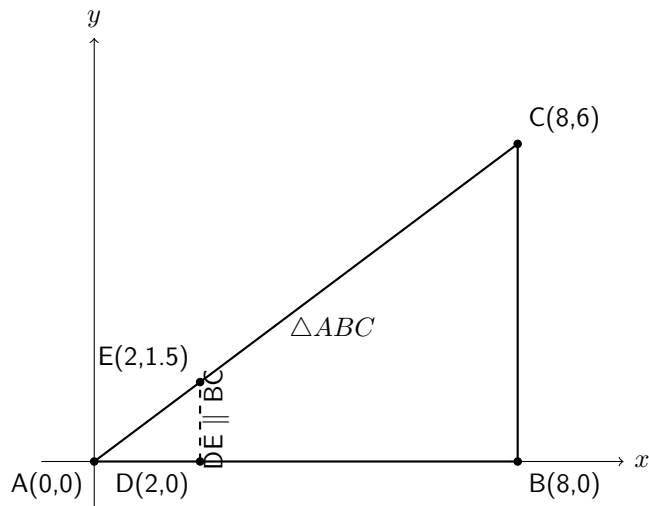
1. The sum of the first 20 odd natural numbers is:
 - (a) 200
 - (b) 400
 - (c) 100
 - (d) 20^2
2. If $x - \frac{1}{x} = 4$, find the value of $x^2 + \frac{1}{x^2}$.
 - (a) 8
 - (b) 14
 - (c) 15
 - (d) 18
3. A rectangle has a length of 15 cm and breadth of 9 cm. If a diagonal is drawn from one corner to the opposite corner, find its length.
 - (a) 16 cm

- (b) 17 cm
 - (c) 18 cm
 - (d) 20 cm
4. A number is divisible by both 3 and 5 but not by 15. The smallest such number greater than 50 is:
- (a) 60
 - (b) 75
 - (c) 90
 - (d) 105
5. Find the product of the place values of 5 and 7 in the number 75249.
- (a) 35
 - (b) 350
 - (c) 3500
 - (d) 35000
6. If 8 workers can build a wall in 12 days, in how many days will 6 workers build the same wall?
- (a) 10 days
 - (b) 14 days
 - (c) 16 days
 - (d) 18 days
7. The average of five consecutive odd numbers is 37. Find the smallest number.
- (a) 33
 - (b) 35
 - (c) 37
 - (d) 39
8. If a fraction $\frac{3}{5}$ is multiplied by a number and the result is $\frac{9}{10}$, find the number.
- (a) $\frac{3}{2}$
 - (b) $\frac{5}{3}$
 - (c) $\frac{6}{5}$
 - (d) $\frac{9}{8}$
9. A tank can be filled by a pipe in 4 hours and emptied by another in 6 hours. If both are opened together, the tank will be filled in:
- (a) 10 hours
 - (b) 12 hours

- (c) 15 hours
(d) 24 hours
10. The LCM and HCF of two numbers are 180 and 15 respectively. If one number is 45, find the other.
- (a) 50
(b) 54
(c) 60
(d) 75
11. The points A(0,0), B(6,0), and C(3,4) form a triangle. The area of the triangle ABC



- (a) 10 sq units
(b) 12 sq units
(c) 15 sq units
(d) 20 sq units
12. In $\triangle ABC$, the coordinates are A(0,0), B(8,0), C(8,6). If a line DE parallel to BC cuts the sides AB and AC at D(2,0) and E(2,1.5), find the ratio $\frac{AD}{AB}$.



- (a) $\frac{1}{2}$
- (b) $\frac{1}{3}$
- (c) $\frac{1}{4}$
- (d) $\frac{1}{5}$

13. The sum of the interior angles of a polygon is 1080° . Find the number of sides.

- (a) 6
- (b) 7
- (c) 8
- (d) 9

14. The volume of a cuboid is 480 cm^3 and its dimensions are $10 \text{ cm} \times 8 \text{ cm} \times h \text{ cm}$. Find the height.

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

15. A square and a circle have the same perimeter. If the side of the square is 14 cm, find the radius of the circle.

- (a) 7 cm
- (b) $\frac{14}{\pi}$ cm
- (c) $\frac{28}{\pi}$ cm
- (d) $\frac{14}{2\pi}$ cm

16. The time shown by a clock is 4:20. The angle between the hour and minute hands is:

- (a) 100°
- (b) 110°
- (c) 120°
- (d) 130°

17. A circular garden has a diameter of 14 m. A path 2 m wide runs around it. Find the area of the path.

- (a) $40\pi \text{ m}^2$
- (b) $44\pi \text{ m}^2$
- (c) $48\pi \text{ m}^2$
- (d) $52\pi \text{ m}^2$

18. A pictograph shows 1 picture = 5 students. If 8 pictures represent girls and 6 pictures represent boys, find the ratio of boys to total students.
- (a) $\frac{3}{7}$
 - (b) $\frac{3}{5}$
 - (c) $\frac{2}{7}$
 - (d) $\frac{6}{13}$
19. The bar graph representing monthly sales shows maximum sales of 80 units in June and minimum 20 units in February. The difference in percentage is:
- (a) 50%
 - (b) 60%
 - (c) 70%
 - (d) 75%
20. The perimeter of a rectangle is 84 cm. Its length is twice its breadth. Find its area.
- (a) 200 cm²
 - (b) 250 cm²
 - (c) 392 cm²
 - (d) 448 cm²
21. Which of the following numbers is a prime number?
- (a) 87
 - (b) 91
 - (c) 97
 - (d) 99
22. Find the mode of the following data: 2, 3, 3, 4, 5, 3, 2, 1, 3, 4.
- (a) 2
 - (b) 3
 - (c) 4
 - (d) 5

- 23.** A child says “five tens make fifty”. This indicates understanding of:
- (a) Place value
 - (b) Counting
 - (c) Ordinal number
 - (d) Skip counting
- 24.** A student consistently writes 14 as 41. The teacher should:
- (a) Punish the child for carelessness
 - (b) Ignore the mistake
 - (c) Help the child with place value concepts using abacus
 - (d) Give more practice problems
- 25.** Which teaching aid helps children to understand the concept of “fractions as part of a whole” most effectively?
- (a) Flash cards
 - (b) Paper folding
 - (c) Blackboard drawing
 - (d) Verbal explanation
- 26.** When a teacher relates addition to joining of two groups of objects, she is using:
- (a) Abstract reasoning
 - (b) Concrete representation
 - (c) Algebraic method
 - (d) Deductive logic
- 27.** Continuous assessment in mathematics helps a teacher to:
- (a) Compare students with each other
 - (b) Record progress and provide timely feedback
 - (c) Eliminate weak students
 - (d) Reduce examination work
- 28.** A child says “ $2 \times 6 = 12$ ” and also “ $6 \times 2 = 12$ ”. This shows understanding of:
- (a) Distributive property
 - (b) Commutative property
 - (c) Associative property
 - (d) Additive property
- 29.** Which of the following activities develops estimation skills?
- (a) Measuring exact length using scale
 - (b) Guessing number of marbles in a jar
 - (c) Copying solved problems
 - (d) Counting beads one by one

- 30.** When teaching shapes, allowing children to trace and cut them out helps in:
- (a) Developing motor and spatial skills
 - (b) Memorizing definitions
 - (c) Fast calculation
 - (d) Oral expression