

CTET Mathematics Practice Test

Paper I (For Classes I–V)

General Instructions

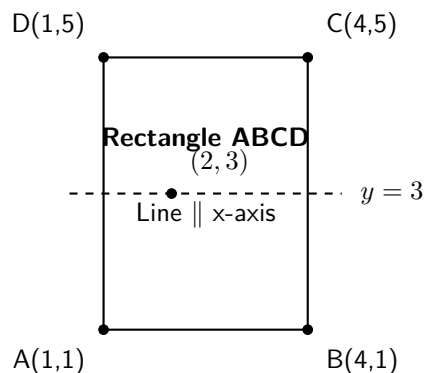
Practice Test - 21

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. What is the smallest 4-digit number whose sum of digits is 15?
 - (a) 1059
 - (b) 1149
 - (c) 1239
 - (d) 1068
2. A teacher is preparing a **Diagnostic Test** on subtraction of 3-digit numbers. The primary purpose of this test is to: (Pedagogy)

- (a) Assign final grades for the report card.
 - (b) Compare the student's performance with other schools.
 - (c) Identify the specific step or area where the student is making errors (e.g., regrouping/borrowing).
 - (d) Determine the student's overall cognitive development level.
3. If a person walks at a speed of 4 km/hour, how many minutes will it take them to cover a distance of 3 kilometers?
- (a) 75 minutes
 - (b) 45 minutes
 - (c) 60 minutes
 - (d) 90 minutes
4. The total number of factors of 36 is:
- (a) 7
 - (b) 9
 - (c) 8
 - (d) 10
5. A rectangle $ABCD$ has vertices at $A(1, 1)$, $B(4, 1)$, $C(4, 5)$, and $D(1, 5)$. A line parallel to the x-axis passes through the point $(2, 3)$. What is the equation of this line?



- (a) $x = 2$
 - (b) $y = 3$
 - (c) $x = y$
 - (d) $x + y = 5$
6. Simplify the expression: $0.1 \times 10 + 0.1 \div 10 + 1$

- (a) 1.11
 - (b) 2.01
 - (c) 2.11
 - (d) 1.01
7. A tank is $\frac{3}{4}$ full of oil. If 5 liters are added, the tank becomes $\frac{4}{5}$ full. What is the capacity of the tank in liters?
- (a) 100 liters
 - (b) 80 liters
 - (c) 90 liters
 - (d) 120 liters
8. The main benefit of using **real-life scenarios** (like shopping, cooking recipes) in primary mathematics is to: (Pedagogy)
- (a) Teach complex financial literacy at an early age.
 - (b) Help students develop the ability to apply abstract concepts to concrete contexts.
 - (c) Reduce the number of homework assignments.
 - (d) Focus purely on memorizing formulas.
9. Which property of whole numbers is demonstrated by the equation:
 $15 \times 1 = 15$?
- (a) Commutative Property
 - (b) Associative Property
 - (c) Multiplicative Identity
 - (d) Distributive Property
10. A shopkeeper gives a discount of 20 units on a product priced at 200 units. What percentage of discount did he offer?
- (a) 10%
 - (b) 20%
 - (c) 80%
 - (d) 5%
11. What is the difference between 3 kg200 grams and 1 kg850 grams?
- (a) 1 kg 350 grams

- (b) 2 kg 350 grams
 - (c) 1 kg 450 grams
 - (d) 2 kg 450 grams
12. The **Play-Way Method** in teaching primary mathematics is based on the pedagogical principle that: (Pedagogy)
- (a) Learning should always be purely theoretical.
 - (b) Children learn best through active engagement, exploration, and enjoyment.
 - (c) Competition should be the sole motivator.
 - (d) The teacher should deliver a lecture without interruption.
13. How many degrees does the minute hand of a clock rotate between 2 : 15 PM and 2 : 45 PM?
- (a) 90°
 - (b) 180°
 - (c) 120°
 - (d) 360°
14. The perimeter of an equilateral triangle is 18 cm. If a square has a side length equal to the side length of the triangle, what is the area of the square?
- (a) 36 square cm
 - (b) 9 square cm
 - (c) 6 square cm
 - (d) 18 square cm
15. A student confuses the term **cone** with **cylinder**. The best way to address this is by:
- (a) Giving a written definition of both shapes.
 - (b) Showing 3D physical models of a cone and a cylinder side-by-side, pointing out the number of flat faces, curved faces, and vertices.
 - (c) Asking the student to name 10 real-life examples of each.
 - (d) Ignoring the error as it is minor.
16. Find the missing decimal in the sequence: 0.1, 0.4, 0.7, _____, 1.3

- (a) 1.0
 - (b) 1.1
 - (c) 1.2
 - (d) 0.9
17. Which of the following numbers is divisible by 3 but not by 9?
- (a) 4563
 - (b) 135
 - (c) 2154
 - (d) 120
18. The total number of vertices in a pyramid with a square base is:
- (a) 4
 - (b) 5
 - (c) 6
 - (d) 8
19. Which of the following assessment methods best aligns with **Formative Assessment** in a math classroom? (Pedagogy)
- (a) A standardized test at the end of the year.
 - (b) A homework assignment checked only for the final answer.
 - (c) A short student presentation explaining their problem-solving strategy, followed by teacher feedback.
 - (d) A midterm exam that contributes 50% to the final grade.
20. A piece of wood is 1 meter long. $\frac{1}{5}$ of it is cut off, and then $\frac{1}{4}$ of the remainder is cut off. How many centimeters of wood are left?
- (a) 60 cm
 - (b) 75 cm
 - (c) 80 cm
 - (d) 70 cm
21. If 12 is the average of 15, 10, 14, 9, and x , what is the value of x ?
- (a) 10
 - (b) 12
 - (c) 14

- (d) 16
22. The coordinates of a line segment are $A(-1, 2)$ and $B(3, 2)$. What is the length of the segment AB ?
- (a) 2 units
 - (b) 4 units
 - (c) 5 units
 - (d) 3 units
23. A student is able to sort objects by color and size, and can create a simple bar graph from the sorted data. This indicates an introductory understanding of which syllabus topic?
- (a) Fractions and Decimals
 - (b) Factors and Multiples
 - (c) Data Handling and Logical Reasoning
 - (d) Basic Geometry
24. What is the value of 50% of $120 - 25\%$ of 80?
- (a) 60
 - (b) 40
 - (c) 20
 - (d) 80
25. When teaching primary students about capacity, the initial instruction should focus on: (Pedagogy)
- (a) Memorizing the conversion from liters to milliliters.
 - (b) Using non-standard containers (like cups, jars) to compare 'holds more/less'.
 - (c) Directly using a measuring cylinder with fine standard units.
 - (d) Calculating the volume of complex 3D shapes.
26. Which operation, when performed first, correctly solves the equation $100 - x \times 5 = 70$?
- (a) Multiplication ($x \times 5$)
 - (b) Subtraction ($100 - x$)
 - (c) Subtraction ($100 - 70$)

- (d) Division ($70 \div 5$)
27. A student incorrectly claims that a rhombus is the same as a square. The error is due to:
- (a) Confusing 2D shapes with 3D shapes.
 - (b) Inadequate understanding of the specific properties (especially angles) of quadrilaterals.
 - (c) Lack of knowledge of perimeter calculation.
 - (d) Misunderstanding the concept of a line segment.
28. The sum of the greatest 3-digit number and the smallest 2-digit number is:
- (a) 1099
 - (b) 1000
 - (c) 9990
 - (d) 9991
29. Which of the following fractions is equivalent to $\frac{2}{3}$?
- (a) $\frac{4}{9}$
 - (b) $\frac{8}{12}$
 - (c) $\frac{6}{8}$
 - (d) $\frac{5}{10}$
30. The purpose of incorporating **gender-sensitive approaches** in mathematics education is to: (Pedagogy)
- (a) Separate boys and girls for easier instruction.
 - (b) Ensure that societal stereotypes about mathematical ability do not inhibit any student's learning or participation.
 - (c) Give girls more time to complete assignments than boys.
 - (d) Only use examples relevant to one gender.
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