

CTET Mathematics Practice Test

Paper I (For Classes I–V)

General Instructions

Practice Test - 01

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 smallest 5-digit number that is divisible by both 9 and 12 is:
(a) 10008
(b) 10044
(c) 10080
(d) 10116
2. What is the difference between the place value and face value of 8 in 48263?

- (a) 792
 - (b) 800
 - (c) 7920
 - (d) 808
3. A student multiplied 36 by 5 instead of dividing by 5. The error in his answer is:
- (a) 204
 - (b) 180
 - (c) 189
 - (d) 171
4. A tank can be filled by a tap in 6 hours and emptied by another in 8 hours. How long will it take to fill the tank if both taps are opened together?
- (a) 24 hours
 - (b) 48 hours
 - (c) 12 hours
 - (d) $24/7$ hours
5. The sum of the first 20 even natural numbers is:
- (a) 200
 - (b) 220
 - (c) 400
 - (d) 420
6. If $\frac{3}{4}$ of a number is 21, what is $\frac{5}{6}$ of the same number?
- (a) 25
 - (b) 30
 - (c) 35
 - (d) 40
7. The least common multiple (LCM) of 18, 24 and 32 is:
- (a) 288
 - (b) 96
 - (c) 144

(d) 192

8. Which of the following fractions is equivalent to $\frac{5}{8}$?

(a) $\frac{15}{20}$

(b) $\frac{10}{16}$

(c) $\frac{20}{30}$

(d) $\frac{25}{40}$

9. Convert 0.625 into a fraction in the simplest form.

(a) $\frac{5}{8}$

(b) $\frac{3}{4}$

(c) $\frac{7}{8}$

(d) $\frac{4}{5}$

10. A line segment AB of length 8 cm has points A(0,0) and B(8,0). A point P divides AB in the ratio 3:1. What are the coordinates of P?

(a) (2, 0)

(b) (3, 0)

(c) (6, 0)

(d) (4, 0)

11. In $\triangle ABC$, A(0,0), B(6,0), C(3,6). If D is the midpoint of BC, find the coordinates of D.

(a) (3,3)

(b) (4.5,3)

(c) (3,0)

(d) (2,3)

12. A circle has center O(2,3) and passes through P(2,7). What is its equation?

(a) $(x - 2)^2 + (y - 3)^2 = 16$

(b) $(x + 2)^2 + (y - 3)^2 = 16$

(c) $(x - 3)^2 + (y - 2)^2 = 4$

(d) $(x - 2)^2 + (y - 3)^2 = 12$

13. The perimeter of a rectangle is 60 cm. If its length is 5 cm more than twice its breadth, what is its area?

- (a) 200 cm^2
- (b) 225 cm^2
- (c) 250 cm^2
- (d) 300 cm^2

14. A clock shows 3:20. Find the angle between the hour and minute hands.

- (a) 15 degrees
- (b) 20 degrees
- (c) 10 degrees
- (d) 5 degrees

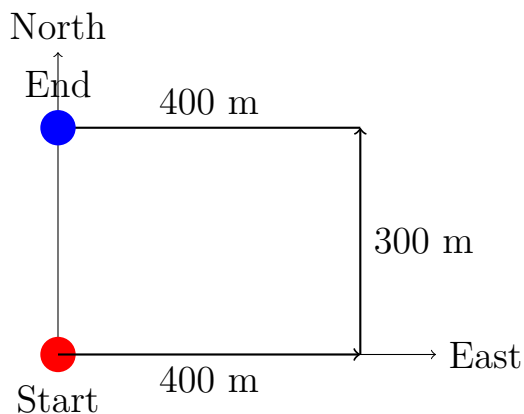
15. A cube of side 5 cm is painted on all sides and cut into smaller cubes of side 1 cm. How many cubes have exactly one face painted?

- (a) 27
- (b) 54
- (c) 98
- (d) 125

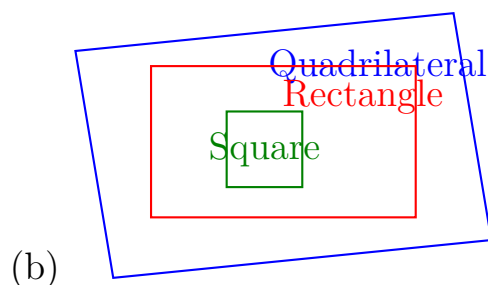
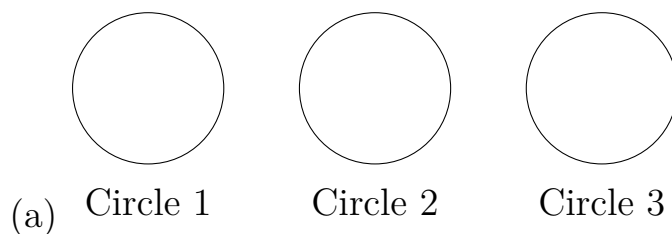
16. The perimeter of an equilateral triangle is 18 cm. What is the area of the triangle (in cm^2)?

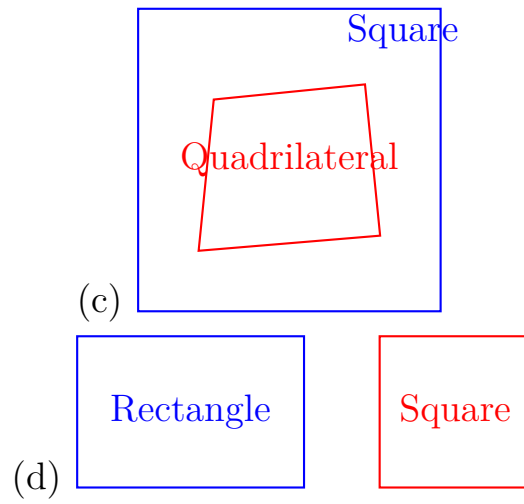
- (a) $9\sqrt{3}$
- (b) $12\sqrt{3}$
- (c) $15\sqrt{3}$
- (d) $18\sqrt{3}$

17. A boy walks 400 m east, then 300 m north, and finally 400 m west. Find his distance from the starting point.



- (a) 300 m
(b) 400 m
(c) 500 m
(d) 600 m
- 18.** The time shown on a clock is 7:45. What is the reflex angle between the hour and minute hands?
- (a) 127.5 degrees
(b) 232.5 degrees
(c) 247.5 degrees
(d) 117.5 degrees
- 19.** If 12 pens cost 96, what will be the cost of 15 pens at the same rate?
- (a) 110
(b) 120
(c) 115
(d) 130
- 20.** The bar graph shows: Red–10, Blue–15, Green–20, Yellow–25. If each unit represents 5 students, find the total number of students.
- (a) 70
(b) 75
(c) 85
(d) 90
- 21.** Which of the following Venn diagrams correctly represents the relationship between quadrilateral, rectangle, and square?





22. Which of the following sequences continues the pattern 2, 4, 8, 16, 32, ... ?

- (a) 48
- (b) 54
- (c) 64
- (d) 72

- 23.** A child is counting 12 marbles by touching each marble and saying a number aloud. The child is in which stage of learning?
- (a) Abstract stage
 - (b) Symbolic stage
 - (c) Concrete stage
 - (d) Conceptual stage
- 24.** Which of the following best describes the process of *mathematization*?
- (a) Memorizing multiplication tables
 - (b) Applying mathematical ideas to real situations
 - (c) Performing routine calculations
 - (d) Copying solved examples
- 25.** The use of concrete objects to introduce addition and subtraction in early grades helps children to:
- (a) Rely on memorization
 - (b) Move from concrete to abstract understanding
 - (c) Avoid visualization
 - (d) Skip logical reasoning
- 26.** A teacher notices that some students always reverse digits while writing numbers. This difficulty is primarily:
- (a) Conceptual
 - (b) Perceptual-motor
 - (c) Procedural
 - (d) Linguistic
- 27.** When a teacher asks students to create patterns using matchsticks, it helps in developing:
- (a) Algorithmic skills
 - (b) Problem-solving and visualization skills
 - (c) Rote learning
 - (d) Language skills
- 28.** Continuous assessment in mathematics aims at:
- (a) Ranking students

- (b) Finding learning gaps for timely feedback
 - (c) Increasing test frequency
 - (d) Promoting competition
- 29.** When students explain their methods of solving a problem, the teacher is encouraging:
- (a) Conceptual understanding and reasoning
 - (b) Memorization of algorithms
 - (c) Speed and accuracy
 - (d) Silent observation
- 30.** Which of the following is a characteristic of an inclusive mathematics classroom?
- (a) Separate curriculum for high achievers
 - (b) Equal opportunities and flexible strategies for all learners
 - (c) Limited use of teaching aids
 - (d) Strict uniform pace of instruction