test

Subject: Mathematics
Class: 10

Total Marks: 100
Duration: 60 minutes

INSTRUCTIONS:

1. All questions are compulsory.
2. Read all questions carefully before answering.
3. Write your answers clearly and legibly.
4. For multiple choice questions, choose the best answer.
5. For fill in the blanks, write the complete word or phrase.
6. For drawing questions, use a pencil and draw clearly.
7. For matching questions, draw arrows to connect the pairs.
8. Manage your time effectively.

Q1. What is the value of < ‡ ’’ &ðximately?

Choose the best answer:

A) 2.14
B) 3.14
C) 4.14
D) 5.14

[1 marks]
[REMEMBER]

Q2. The formula for the area of a square is side × ____.

Fill in the blanks with appropriate words:

[1 marks]
[REMEMBER]

Q3. What is 5 multiplied by 7?

Answer in one word:

[1 marks]
[REMEMBER]

Q4. A triangle can have two right angles. (True/False)

A) True
B) False

[1 marks]
[REMEMBER]

Q5. Which of the following are prime numbers?

Choose all correct answers:

A) 4
B) 7
C) 9
D) 11

[1 marks]
[REMEMBER]

Q6. Match the shape with its number of sides:

Match the following:

1. Triangle !’ _____
2. Square !’ _____
3. Pentagon !’ _____

[1 marks]
[REMEMBER]

Q7. Draw a simple circle.

Drawing Instructions:

Draw a closed curved line with all points equidistant from the center.

Space for drawing:

[1 marks]
[REMEMBER]

Q8. Mark the right angle in the following diagram of a right-angled triangle.

Marking Instructions:

Mark the 90-degree angle with a small square symbol.

[1 marks]
[REMEMBER]

Q9. Define what an even number is.

[1 marks]
[REMEMBER]

Q10. State the formula for the perimeter of a rectangle.

[1 marks]
[REMEMBER]

Q11. Explain what a fraction represents.

[2 marks]
[UNDERSTAND]

Q12. Describe the difference between a line and a line segment.

[2 marks]
[UNDERSTAND]

Q13. What does the term 'volume' refer to in mathematics?

[2 marks]
[UNDERSTAND]

Q14. Explain the concept of 'ratio'.

[2 marks]
[UNDERSTAND]

Q15. Explain the difference between area and perimeter.

[2 marks]
[UNDERSTAND]

Q16. Calculate the area of a rectangle with length 8 cm and width 5 cm.

[3 marks]
[APPLY]

Q17. Solve for x: $2x + 5 = 11$

[3 marks]
[APPLY]

Q18. A shop sells apples for $2 each. If you buy 6 apples, how much will it cost?

[3 marks]
[APPLY]

Q19. What is 25% of 80?

[3 marks]
[APPLY]

Q20. Find the perimeter of a square with side length 7 cm.

[3 marks]
[APPLY]

Q21. Compare and contrast a square and a rhombus.

[5 marks]
[ANALYZE]

Q22. Explain how you would find the average of a set of numbers.

[5 marks]
[ANALYZE]

Q23. Explain the relationship between multiplication and division.

[5 marks]
[ANALYZE]

Q24. If the area of a rectangle is 48 sq cm, and one side is 6 cm, find the length of the other side. Show your steps.

[5 marks]
[APPLY]

Q25. Sarah has 24 cookies and wants to share them equally among her 6 friends. How many cookies will each friend get? Show your working.

[5 marks]
[APPLY]

Q26. A train travels at a speed of 80 km/h. How far will it travel in 3 hours?

[5 marks]
[APPLY]

Q27. Solve the following equation: 3x - 7 = 8. Show all the steps.

[5 marks]
[APPLY]

Q28. Find the area and perimeter of a rectangle with length 10 cm and width 4 cm.

[5 marks]
[APPLY]

Q29. Why is understanding fractions important in everyday life? Give specific examples.

[5 marks]
[EVALUATE]

Q30. Which is a better deal: buying 3 items for $10 or buying each item separately for $4? Justify your answer.

[5 marks]
[EVALUATE]

Q31. Design a simple geometric pattern using at least three different shapes. Describe the pattern and explain why you chose those shapes.

[3 marks]
[CREATE]

Q32. Explain the difference between prime and composite numbers with examples.

[5 marks]
[ANALYZE]

Q33. Is it always beneficial to use the largest common factor when simplifying fractions? Why or why not?

[5 marks]
[EVALUATE]

Q34. Imagine you are teaching a younger student about addition. How would you explain it to them?

[5 marks]
[CREATE]