

MATH Exam Paper

Subjective Questions

1. What is the Pythagorean theorem and explain its application?

Answer:

2. Derive the quadratic formula from the general form of a quadratic equation.

Answer:

3. Explain the concept of limits in calculus.

Answer:

4. Solve the following system of equations using substitution method: $2x + y = 10$ and $3x - y = 5$.

Answer:

5. What are eigenvalues and eigenvectors? Provide an example.

Answer:

6. Describe the difference between permutations and combinations.

Answer:

7. What is the fundamental theorem of algebra?

Answer:

8. Explain how the binomial theorem can be used to expand expressions.

Answer:

9. Find the derivative of the function $f(x) = x^3 + 5x^2 - 2x + 7$.

Answer:

10. Explain the concept of mathematical induction and prove the sum formula for the first n integers.

Answer:

11. Formula of circle?

Answer:

12. What is the formula of a triangle?

Answer:

MCQ Questions

13. What is $2 + 2$?

a) 4

b) 5

c) 6

d) 7

14. What is $5 * 6$?

a) 25

b) 30

c) 35

d) 40

15. What is the square root of 16?

a) 2

b) 4

c) 6

d) 8

16. What is $12 \div 4$?

a) 2

b) 3

c) 4

d) 5

17. What is $9 + 10$?

a) 18

b) 19

c) 20

d) 21
