

# MATH Exam Paper

## Subjective Questions

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

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Answer:

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

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Answer:

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3. Explain the concept of limits in calculus.

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Answer:

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

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Answer:

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

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Answer:

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6. Describe the difference between permutations and combinations.

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Answer:

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7. What is the fundamental theorem of algebra?

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Answer:

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

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Answer:

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

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Answer:

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

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Answer:

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11. Formula of circle?

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Answer:

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12. What is the formula of a triangle?

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Answer:

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13. abcdefghi

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Answer:

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14. hjaskfasf

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Answer:

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15. musadiq balouch

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Answer:

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16. this is a math question

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Answer:

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17. question-subj

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Answer:

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18. subj

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Answer:

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19. subj-2

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Answer:

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**MCQ Questions**

20. What is  $2 + 2$ ?

- a) 4
- b) 5
- c) 6
- d) 7

21. What is  $5 * 6$ ?

- a) 25
- b) 30
- c) 35
- d) 40

22. What is the square root of 16?

- a) 2
- b) 4
- c) 6
- d) 8

23. What is  $12 / 4$ ?

- a) 2
- b) 3
- c) 4
- d) 5

24. What is  $9 + 10$ ?

- a) 18
- b) 19
- c) 20
- d) 21

25. abcdefgjjklm

- a) a
- b) b
- c) c
- d) d

26. this is a math question

- a) a
- b) b
- c) c
- d) d

27. obj

a) a

b) b

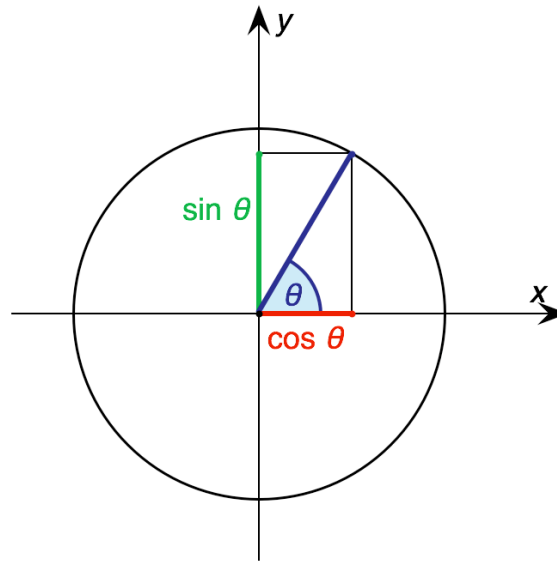
c) c

d) d

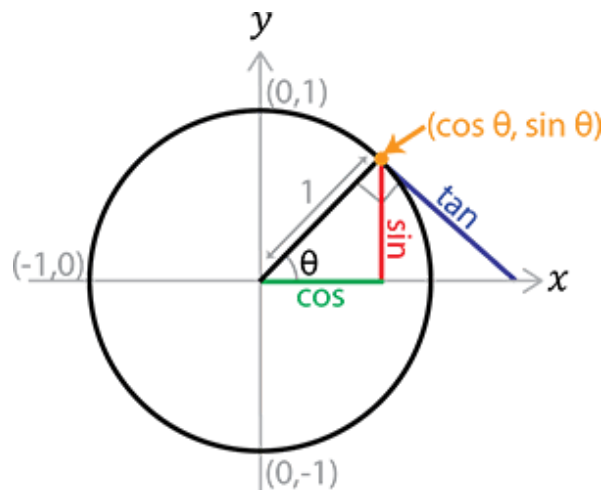
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## Diagram Questions

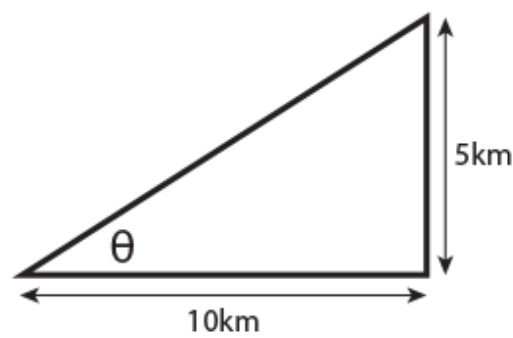
28. What is the structure of a cell?



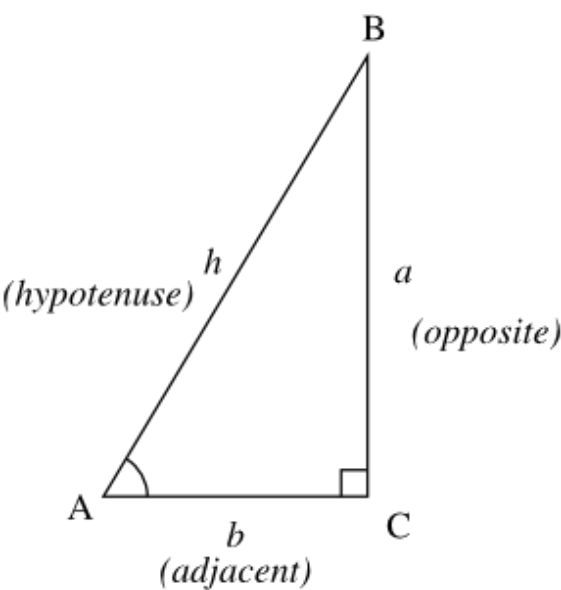
29. Draw the circuit diagram of a series circuit.



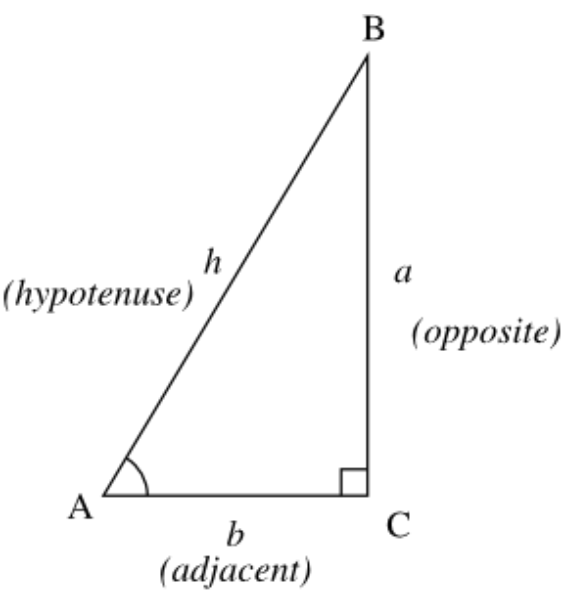
30. Illustrate the water cycle diagram.



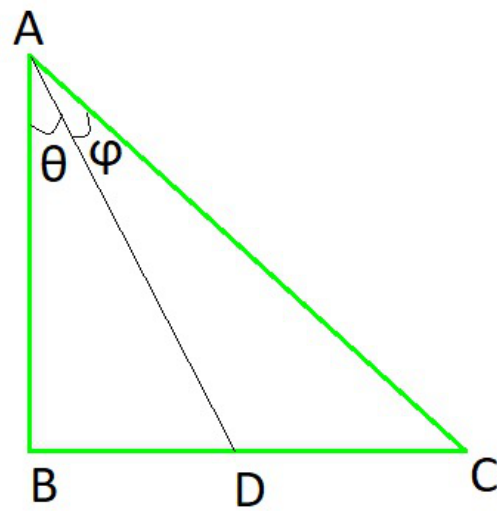
31. question-diagram



32. diagram



33. jpeg



34. diag-2

