

1. What is the order of a differential equation?

- a. The order is the highest derivative in the equation.
- b. The order is the lowest derivative in the equation.
- c. The order is the number of derivatives in the equation.
- d. The order is the number of terms in the equation.

2. What is the degree of a differential equation?

- a. The degree is the highest derivative in the equation.
- b. The degree is the lowest derivative in the equation.
- c. The degree is the number of derivatives in the equation.
- d. The degree is the number of terms in the equation.

3. What is a homogeneous differential equation?

- a. A homogeneous differential equation is an equation where all the terms have the same degree.
- b. A homogeneous differential equation is an equation where all the terms have the same order.
- c. A homogeneous differential equation is an equation where all the terms have the same derivative.
- d. A homogeneous differential equation is an equation where all the terms have the same variable.

4. What is a linear differential equation?

- a. A linear differential equation is an equation where all the terms have the same degree.
- b. A linear differential equation is an equation where all the terms have the same order.
- c. A linear differential equation is an equation where all the terms have the same derivative.
- d. A linear differential equation is an equation where all the terms have the same variable.

5. What is a separable differential equation?

- a. A separable differential equation is an equation that can be written in the form of two functions that are equal to each other.
- b. A separable differential equation is an equation that can be written in the form of two derivatives that are equal to each other.
- c. A separable differential equation is an equation that can be written in the form of two equations that are equal to each other.
- d. A separable differential equation is an equation that can be written in the form of two variables that are equal to each other.

6. What is an exact differential equation?

- a. An exact differential equation is an equation where the derivatives of both sides are equal.
- b. An exact differential equation is an equation where the integrals of both sides are equal.
- c. An exact differential equation is an equation where the terms of both sides are equal.
- d. An exact differential equation is an equation where the variables of both sides are equal.

7. What is an integrating factor?

- a. An integrating factor is a factor that is used to find the general solution of a differential equation.
- b. An integrating factor is a factor that is used to find the particular solution of a differential equation.
- c. An integrating factor is a factor that is used to find the order of a differential equation.
- d. An integrating factor is a factor that is used to find the degree of a differential equation.

8. What is a Bernoulli differential equation?

- a. A Bernoulli differential equation is an equation where all the terms have the same degree.
- b. A Bernoulli differential equation is an equation where all the terms have the same order.
- c. A Bernoulli differential equation is an equation where all the terms have the same derivative.
- d. A Bernoulli differential equation is an equation where all the terms have the same variable.

9. What is a Riccati differential equation?

- a. A Riccati differential equation is an equation where all the terms have the same degree.
- b. A Riccati differential equation is an equation where all the terms have the same order.
- c. A Riccati differential equation is an equation where all the terms have the same derivative.
- d. A Riccati differential equation is an equation where all the terms have the same variable.

10. What is a homogeneous linear differential equation with constant coefficients?

- a. A homogeneous linear differential equation with constant coefficients is an equation where all the terms have the same degree.
- b. A homogeneous linear differential equation with constant coefficients is an equation where all the terms have the same order.
- c. A homogeneous linear differential equation with constant coefficients is an equation where all the terms have the same derivative.
- d. A homogeneous linear differential equation with constant coefficients is an equation where all the terms have the same variable.

11. What is the general solution of a differential equation?

- a. The general solution of a differential equation is the solution that contains all the possible solutions of the equation.
- b. The general solution of a differential equation is the solution that contains the particular solution of the equation.
- c. The general solution of a differential equation is the solution that contains the homogeneous solution of the equation.
- d. The general solution of a differential equation is the solution that contains the complementary solution of the equation.

12. What is the particular solution of a differential equation?

- a. The particular solution of a differential equation is the solution that contains

all the possible solutions of the equation.

b. The particular solution of a differential equation is the solution that contains the general solution of the equation.

c. The particular solution of a differential equation is the solution that contains the homogeneous solution of the equation.

d. The particular solution of a differential equation is the solution that contains the complementary solution of the equation.

13. What is the homogeneous solution of a differential equation?

a. The homogeneous solution of a differential equation is the solution that contains all the possible solutions of the equation.

b. The homogeneous solution of a differential equation is the solution that contains the general solution of the equation.

c. The homogeneous solution of a differential equation is the solution that contains the particular solution of the equation.

d. The homogeneous solution of a differential equation is the solution that contains the complementary solution of the equation.

14. What is the complementary solution of a differential equation?

a. The complementary solution of a differential equation is the solution that contains all the possible solutions of the equation.

b. The complementary solution of a differential equation is the solution that contains the general solution of the equation.

c. The complementary solution of a differential equation is the solution that contains the particular solution of the equation.

d. The complementary solution of a differential equation is the solution that contains the homogeneous solution of the equation.

15. What is a linear first-order differential equation?

a. A linear first-order differential equation is an equation where the highest derivative is of first order.

b. A linear first-order differential equation is an equation where the lowest derivative is of first order.

c. A linear first-order differential equation is an equation where the highest derivative is of second order.

d. A linear first-order differential equation is an equation where the lowest derivative is of second order.

16. What is a linear second-order differential equation?

a. A linear second-order differential equation is an equation where the highest derivative is of first order.

b. A linear second-order differential equation is an equation where the lowest derivative is of first order.

c. A linear second-order differential equation is an equation where the highest derivative is of second order.

d. A linear second-order differential equation is an equation where the lowest derivative is of second order.

17. What is a nonlinear differential equation?

a. A nonlinear differential equation is an equation where the highest derivative is of first order.

b. A nonlinear differential equation is an equation where the lowest derivative is of first order.

- c. A nonlinear differential equation is an equation where the highest derivative is of second order.
- d. A nonlinear differential equation is an equation where the lowest derivative is of second order.

18. What is a constant coefficient differential equation?

- a. A constant coefficient differential equation is an equation where the highest derivative is of first order.
- b. A constant coefficient differential equation is an equation where the lowest derivative is of first order.
- c. A constant coefficient differential equation is an equation where the highest derivative is of second order.
- d. A constant coefficient differential equation is an equation where the lowest derivative is of second order.

19. What is a variable coefficient differential equation?

- a. A variable coefficient differential equation is an equation where the highest derivative is of first order.
- b. A variable coefficient differential equation is an equation where the lowest derivative is of first order.
- c. A variable coefficient differential equation is an equation where the highest derivative is of second order.
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- c. A homogeneous differential equation is an equation where the highest derivative is of second order.
- d. A homogeneous differential equation is an equation where the lowest derivative is of second order.

21. What is a nonhomogeneous differential equation?

- a. A nonhomogeneous differential equation is an equation where the highest derivative is of first order.
- b. A nonhomogeneous differential equation is an equation where the lowest derivative is of first order.
- c. A nonhomogeneous differential equation is an equation where the highest derivative is of second order.
- d. A nonhomogeneous differential equation is an equation where the lowest derivative is of second order.

22. What is a linear differential equation?

- a. A linear differential equation is an equation where the highest derivative is of first order.
- b. A linear differential equation is an equation where the lowest derivative is of first order.
- c. A linear differential equation is an equation where the highest derivative is of second order.
- d. A linear differential equation is an equation where the lowest derivative is of

second order.

23. What is a nonlinear differential equation?

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- b. A nonlinear differential equation is an equation where the lowest derivative is of first order.
- c. A nonlinear differential equation is an equation where the highest derivative is of second order.
- d. A nonlinear differential equation is an equation where the lowest derivative is of second order.

24. What is an ordinary differential equation?

- a. An ordinary differential equation is an equation where the highest derivative is of first order.
- b. An ordinary differential equation is an equation where the lowest derivative is of first order.
- c. An ordinary differential equation is an equation where the highest derivative is of second order.
- d. An ordinary differential equation is an equation where the lowest derivative is of second order.

25. What is a partial differential equation?

- a. A partial differential equation is an equation where the highest derivative is of first order.
- b. A partial differential equation is an equation where the lowest derivative is of first order.
- c. A partial differential equation is an equation where the highest derivative is of second order.
- d. A partial differential equation is an equation where the lowest derivative is of second order.

1. What is the order of a differential equation?

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2. What is the degree of a differential equation?

- a. The degree is the highest derivative in the equation.

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14. What is the complementary solution of a differential equation?

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16. What is a linear second-order differential equation?

a. A linear second-order differential equation is an equation where the highest derivative is of second order.

17. What is a nonlinear differential equation?

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of second order.

18. What is a constant coefficient differential equation?

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19. What is a variable coefficient differential equation?

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a. A homogeneous differential equation is an equation where the highest derivative is of second order.

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25. What is a partial differential equation?

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