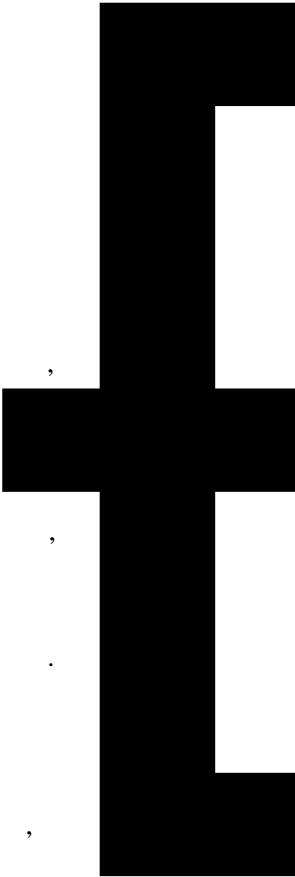




3.



4.



5.



6.

7.

3. , “ ” , ,  
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 , , .  
 , ,

4. “ , ,  
 ” , ,

5. , ,  
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 , ,

1 4 “ ” “ ”  
 2 .

1.  
 1  
 2 ( ) .

2.  
 1 , .  
 2 , .

3.  
 1 , .  
 2 , .  
 3 (Venn) ( )

1.  
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 2 , ( )  
 .  
 3 , .

4

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2.

1

2

3

4

3.

1

2

3

4

$y = a^x$        $y = \log_a x$       ( $a > 0, a \neq 1$ ).

4.

1

2

$y = x, y = x^2, y = x^3, y = \frac{1}{x}, y = x^{\frac{1}{2}}$

5.

1

2

6.

1

2

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( )

1.

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( )

3

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3.

1

2

1.

1

2

2.

1

2

$$\frac{\pi}{2} \pm \alpha, \pi \pm \alpha$$

$$y = \sin x, y = \cos x, y = \tan x$$

3

x

4

$$\sin^2 x + \cos^2 x = 1, \frac{\sin x}{\cos x} = \tan x$$

5  $y = A\sin(\omega x + \varphi)$   $y = A\sin(\omega x + \varphi)$  ,  $A$  ,  
 $\omega, \varphi$  .  
 6 ,

1.

1 .

2 , .

3 .

2.

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2 , .

3 .

3.

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4 .

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4 , .

5.

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3 , .

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( ,

1.

,

2.

1.

- 1 ( ) .
- 2 .
2.
  - 1 .
  - 2  $n$  .
  - 3 ,
  - 4 .

1. , ( ) .
2.
  - 1 .
  - 2 .
  - 3 , , .
3.
  - 1 .
  - 2 , .
  - 3 , .

4.  $\frac{a+b}{2} \sqrt{ab} \quad (a \geq 0, b \geq 0)$

- 1 .
- 2 ( ) .

1.
  - 1 .
  - 2 “  $p, q$  ” ,
  - 3 .

2. “ ” “ ” “ ” .

3.
  - 1 .
  - 2 .

- 1 , .
- 2 .
- 3 , .
- 4 .
- 5 .

1.
  - 1 .

2

2.

1

$$y = C \quad (C \quad ), \quad y = x, \quad y = x^2, \quad y = \frac{1}{x} \quad .$$

2

.

•

$$(C)' = 0 \quad (C \quad ) \quad (x^n)' = nx^{n-1}, \quad n \in \mathbf{N}_+$$

$$(\sin x)' = \cos x \quad (\cos x)' = -\sin x$$

$$(e^x)' = e^x \quad (a^x)' = a^x \ln a \quad (a > 0, \quad a \neq 1)$$

$$(\ln x)' = \frac{1}{x} \quad (\log_a x)' = \frac{1}{x} \log_a e \quad (a > 0, \quad a \neq 1).$$

•

$$1 \quad [u(x) \pm v(x)]' = u'(x) \pm v'(x).$$

$$2 \quad [u(x)v(x)]' = u'(x)v(x) + u(x)v'(x).$$

$$3 \quad \left[ \frac{u(x)}{v(x)} \right]' = \frac{u'(x)v(x) - u(x)v'(x)}{v^2(x)} \quad (v(x) \neq 0).$$

3.

1

$$( \quad ) \quad ),$$

2

$$( \quad ) \quad ($$

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4.

1.

$$( \quad 2 \times 2 \quad )$$

2.

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2.

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2

1.

1

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3

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7

8

9

2.

1

2

3

4

1.

1  $|a+b| = |a|+|b|$ .

2  $|a-b| = |a-c|+|c-b|$ .

3

$$|ax+b| \leq c \iff |ax+b| \leq c \iff |x-a|+|x-b| \leq c.$$

2. , , .

$$1 \quad |\alpha| \cdot |\beta| = |\alpha \cdot \beta|.$$

$$2 \quad (a^2 + b^2)(c^2 + d^2) = (ac + bd)^2.$$

$$3 \quad \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2} + \sqrt{(x_2 - x_3)^2 + (y_2 - y_3)^2} = \sqrt{(x_1 - x_3)^2 + (y_1 - y_3)^2}.$$

( . )

3.

$$\sum_{i=1}^n a_i^2 \cdot \sum_{i=1}^n b_i^2 = \left( \sum_{i=1}^n a_i b_i \right)^2.$$

4.

5.

6.

$$(1 + x)^n > 1 + nx \quad (x > -1, x \neq 0, n > 1),$$

$n > 1$

7.

8.