1.
   (b) $\frac{-56}{65}$
   Explanation:
   $\frac{-56}{65}$

2.
   (c) -4
   Explanation:
   -4

3.
   (b) $2\sqrt{3}$
   Explanation:
   $2\sqrt{3}$

4.
   (b) $x^2 + y^2 - 8x - 2y - 51 = 0$
   Explanation:
   $x^2 + y^2 - 8x - 2y - 51 = 0$

5.
   (b) $\frac{25}{52}$
   Explanation:
   $\frac{25}{52}$

6.
   (b) $2^n - 1$
   Explanation:
   $2^n - 1$

7.
   (b) 12
   Explanation:
   12

8. **(a)** 1023
   Explanation:
   1023

9.
   (c) $\sin x^2$
   Explanation:
   $\sin x^2$

10.

(d) does not exist

Explanation:

does not exist

11.

(c) a = -1, b = -22

Explanation:

a = -1, b = -22

12. **(a)** Saral Mart does not reduce the prices and still I will shop there.

Explanation:

Saral Mart does not reduce the prices and still I will shop there.

13. **(a)** 29

Explanation:

29

14.

(b) $\begin{bmatrix} 7 & 5 \\ -11 & -8 \end{bmatrix}$

Explanation:

$\begin{bmatrix} 7 & 5 \\ -11 & -8 \end{bmatrix}$

15.

(d) 1

Explanation:

1

16.

(d) c = a

Explanation:

c = a

17.

(b) $\frac{b+c}{a}$

Explanation:

$\frac{b+c}{a}$

18. **(a)** $\frac{1}{9}$

Explanation:

$\frac{1}{9}$

19. **(a)** 0

Explanation:

0

20.

(d) $\frac{3}{2}$

Explanation:

$\frac{3}{2}$

21.

(b) 0

Explanation:

0

22.

(d) 2

Explanation:

2

23.

(d) direction cosines and direction ratios of the line

Explanation:

direction cosines and direction ratios of the line

24.

(c) $7\vec{a} - 15\vec{b}$

Explanation:

$7\vec{a} - 15\vec{b}$

25.

(d) 136

Explanation:

136

26.

(b) $\frac{2\pi}{3}$

Explanation:

$\frac{2\pi}{3}$

27.

(d) $\frac{\pi}{2} - \theta$

Explanation:

$\frac{\pi}{2} - \theta$

28.

(b) $1, 1, \sqrt{2}$

Explanation:

$1, 1, \sqrt{2}$

29. **(a)** x + 3 = y - 3 = z + 4

Explanation:

x + 3 = y - 3 = z + 4

30.

(b) x - y $\leq$ 1, 2x + y $\geq$ 2, x + 2y $\leq$ 8, x $\geq$ 0, y $\geq$ 0

Explanation:

x - y $\leq$ 1, 2x + y $\geq$ 2, x + 2y $\leq$ 8, x $\geq$ 0, y $\geq$ 0

31.

(b) $\frac{1}{2}\sqrt{\frac{1-\tan x}{1+\tan x}} \cdot \sec^2\left(\frac{\pi}{4} + x\right)$

Explanation:

$\frac{1}{2} \sqrt{\frac{1-\tan x}{1+\tan x}} \cdot \sec^2\left(\frac{\pi}{4} + x\right)$

32.

(b) e^x

Explanation:

e^x

33.

(b) $\frac{1}{2}$

Explanation:

$\frac{1}{2}$

34.

(d) sec x

Explanation:

sec x

35.

(d) (1, 1)

Explanation:

(1, 1)

36.

(c) 0.7845

Explanation:

0.7845

37.

(d) $\frac{\pi}{6} + \frac{1}{4} \log 3$

Explanation:

$\frac{\pi}{6} + \frac{1}{4} \log 3$

38. **(a)** $\frac{x^{52}}{52}$ (tan^{-1}x + cot^{-1}x) + c

Explanation:

$\frac{x^{52}}{52}$ (tan^{-1}x + cot^{-1}x) + c

39.

(b) sin 5x

Explanation:

sin 5x

40. **(a)** $4x^2$ + 12x + 6 log x - $\frac{1}{x}$ + c

Explanation:

$4x^2$ + 12x + 6 log x - $\frac{1}{x}$ + c

41.

(b) $\frac{x}{2} + \alpha$

Explanation:

$\frac{x}{2} + \alpha$

42. **(a)** $\frac{128}{3}$

Explanation:

$\frac{128}{3}$

43.

(c) 2 - e

Explanation:

2 - e

44.

(b) None of these

Explanation:

None of these

45. **(a)** $\frac{dy}{dx} = \frac{y}{x}$

Explanation:

$\frac{dy}{dx} = \frac{y}{x}$

46.

(c) 0.37

Explanation:

0.37

47.

(b) $\frac{23}{60}$

Explanation:

$\frac{23}{60}$

48.

(b) $-\frac{1}{16}$ and $\frac{5}{4}$

Explanation:

$-\frac{1}{16}$ and $\frac{5}{4}$

49. **(a)** 55

Explanation:

55

50.

(c) $(0.8)^8$

Explanation:

$(0.8)^8$