

EX : 1**Find the distance between :**

- (1) 7 , 18
- (2) - 3 , 11
- (3) - 4 , -9
- (4) 2 , -8

EX : 2**Evaluate :**

- (1) $|-8 + 5|$
- (2) $||-2| - |-14||$
- (3) $2x^3 - 5x^2 + 8x - 3$ *where $x = -2$.*
- (4) $\frac{|2x-3y|}{x-y} - 5xy$ *where $x = 2 , y = -2$.*

EX : 3**Simplify :**

- (1) $2(3x - 4) - 5(2x - 3)$
- (2) $5(x + 2y) - 2(3x - y + 7)$
- (3) $8 - [2(2x + 4) - 3] + 2x^2 - 3x - 5$

1

Find the distance between :

(1) $3, -10$

(2) $-3, -12$

(3) $-5, 8$

(4) $12, 18$

2

Evaluate :

(1) $|-7 - 15|$

(2) $||-12| + |-14||$

(3) $3x^4 + 5x^3 + 2x^2 - 8x + 3$ where $x = -3$.

(4) $\frac{|3x-4y|}{x+y} - 5(x - 2y)$ where $x = -4$ and $y = 5$.

3

Simplify :

(1) $4(3x + 5) - 2(4x - 7)$

(2) $4(2x + 2y) - 2(3x - 7)$

(3) $10 - 3[2(x^2 - 4) + 7] + 2x^2 - 3x - 2$

EX : 1**Evaluate :**

$$(1) (-5x^{-3}y^4)^2$$

$$(2) \left(\frac{-3x^2}{2y^{-1}}\right)^{-2}$$

EX : 2**Evaluate :**

$$(1) (5x^{-1}y^2)^3(-2x^2y)^{-2}$$

$$(2) \left(\frac{-14x^2y^3}{21x^4y^{-1}}\right)^{-4}$$

$$(3) \left(\frac{-15x^{-2}y^{-3}}{20x^{-4}y}\right)^2$$

1

Evaluate :

$$(1) (3x^3y^{-2})^3$$

$$(2) \left(\frac{-2x^2}{y}\right)^{-3}$$

2

Evaluate :

$$(1) (-4x^1y^{-2})^{-3}(2x^3y)^{-2}$$

$$(2) \left(\frac{-4x^2y^{-3}}{12x^{-4}y^{-1}}\right)^{-3}$$

$$(3) \left(\frac{12x^{-2}y^3}{18x^4y}\right)^2$$

EX : 1**Evaluate :**

(1) $\frac{12}{\sqrt{3}}$

(2) $\frac{15}{\sqrt{7}+\sqrt{2}}$

(3) $\frac{10}{\sqrt{5}-3}$

EX : 2**Evaluate :**

(1) $\sqrt{6x^2y^3} \sqrt{2x^4y^2}$

(2) $\frac{\sqrt{72x^5y^3}}{\sqrt{3x^2y^{-3}}}$ *assume that x, y are positive .*

(3) $\frac{\sqrt[3]{80x^{11}}}{\sqrt[3]{2x^{-2}}}$

1

Evaluate :

$$(1) \frac{14}{\sqrt{7}}$$

$$(2) \frac{15}{\sqrt{5}-\sqrt{2}}$$

$$(3) \frac{8}{\sqrt{11}+3}$$

2

Evaluate :

$$(1) \sqrt{8x^4y^3} \sqrt{3x^{-2}y^4}$$

$$(2) \frac{\sqrt{150x^6y^{11}}}{\sqrt{3x^{-2}y^4}} \text{ assume that } x, y \text{ are positive.}$$

$$(3) \frac{\sqrt[3]{80x^{11}y^4}}{\sqrt[3]{10x^2y^{-1}}}$$

Q1 Choose the correct answer :

1) The distance between $-9, 3$ is

- a. 6
- b. 12
- c. -12
- d. -6

2) The value of $2x^2y^3 - 5xy + 8xy^2$ at $x = -1, y = -2$ is

- a. -6
- b. 8
- c. 6
- d. -26

3) The simplest form of $11 + 3(2x - 5) - 4(3x - 2)$ is

- a. $-6x - 7$
- b. $4 - 6x$
- c. $-6x - 12$
- d. $6x - 4$

4) $\left(\frac{-12x^2y^{-3}}{18x^{-1}y^2}\right)^3 =$

- a. $\frac{-8x^3}{27y^{15}}$
- b. $\frac{-8x^9}{27y^{15}}$
- c. $\frac{-8x^9}{27y^3}$
- d. $\frac{-8x^3}{27y^3}$

5) $\sqrt{18x^5} =$

- a. $3x\sqrt{x}$
- b. $3x^2\sqrt{2x}$
- c. $3x\sqrt{2x}$
- d. $3x^2\sqrt{2}$

6) $\left(\frac{3x}{y^2}\right)^{-2} =$

- a. $\frac{-9x^2}{y^4}$
- b. $\frac{9y^4}{x}$
- c. $\frac{-y^4}{9x^2}$
- d. $\frac{y^4}{9x^2}$

7) $\sqrt[3]{54x^5y^7z^{12}} =$

- a. $3xy^2z^3\sqrt{2xy}$
- b. $3xy^2z^4\sqrt[3]{2xy}$
- c. $3xy^2z^4\sqrt[3]{2x^2y}$
- d. $3xyz^4\sqrt[3]{2x^2y}$

Q2 Find in the simplest form :

1) $8 - 3[2 - (3x - 5) + 2x]$

2) $\frac{\sqrt{24x^5y^4}}{\sqrt{2xy^{-1}}}$

3) $\frac{12}{\sqrt{7}-2}$

Q3 *Simplify :*

1) $(2xy^2)^2(-5x^{-2}y)^3$

2) $4\sqrt{12x} - 2\sqrt{75x}$

3) $\sqrt[9]{x^6y^3}$

Good luck

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