

## BÀI TẬP ĐƠN THỨC – ĐẠI SỐ 7

**Bài 1:** Chọn câu trả lời đúng:

1. Những biểu thức sau là đơn thức:

a.  $-3x^5y; -7; \frac{3}{4}; 2 + 5xy^2$

b.  $2xy^3; 5; \frac{7}{2}; \frac{7}{x}$

c.  $5x^3y^2; -8; \frac{3}{4}x^2y^5$

d.  $4x^3y^5; -3; 7 + 2x^2y$

2. Phần hệ số của đơn thức  $7x^3y^2$  là:

a. 7

b. 42

c.  $7xy$

d.  $\frac{5}{6}$

3. Số 0 được gọi là:

a. Đơn thức không

b. Không phải đơn thức

c. Cả hai a, b đều sai

d. Cả hai a, b đều đúng

4. Phần hệ số của đơn thức  $\frac{-3}{5}x^4y^3$  là:

a. -3

b.  $\frac{-3}{5}$

c.  $\frac{-3.4.3}{5}$

d. 4.3

5. Đơn thức  $-5x^4y^5(-2)xy(3)$  được thu gọn thành:

a.  $(-5)(-2)(3)x^4y^5$

b.  $30x^4y^5$

c.  $30x^5y^6$

d.  $30x^{11}y^{11}$

6. Tích của  $\left(-\frac{2}{5}x^3y^4\right)$  và  $\left(\frac{15}{4}x^4y^3\right)$  là:

a.  $\frac{3}{2}x^7y^7$

b.  $\frac{3}{2}x^7y^7$

c.  $-\frac{3}{2}x^{12}y^{12}$

d.  $-\frac{3}{2}x^{14}y^{14}$

7. Bậc của đơn thức  $(-3x^4y)(2y^5)$  là:

a. 6

b. 9

c. 10

d. 20

8. Hai đơn thức sau là đồng dạng:

a.  $5x^4y^3$  và  $5x^3y^4$

b.  $5x^4y^3$  và  $-12x^4y^3$

c.  $7x^5y^6$  và  $7xy$

d.  $-12x^2y^5$  và  $-12x^2$

9. Các đơn thức đồng dạng với đơn thức  $20x^5y^7$  là:

a.  $\frac{1}{2}x^5y^7$ ;  $-3x^5y^7$ ;  $-x^5y^7$

b.  $-7x^5y^7$ ;  $2x^5y$ ;  $-3xy^7$

c.  $\frac{1}{4}x^5y^7$ ;  $3x^7y^5$ ;  $5x^5y^7$

d. Cả ba câu trên đều đúng.

10. Đơn thức  $-\frac{4}{5}x^3y^7$  có:

a.  $-\frac{4}{5}$  là hệ số và  $x, y$  là phần biến

b. Hệ số:  $-\frac{4}{5}$ , phần biến:  $x^3y^7$

c. Hệ số:  $-4$ , phần biến:  $x$  và  $y$

d. Cả ba câu trên đều sai.

**Bài 2:** Tính giá trị các biểu thức sau:

1.  $A = 3x^2 - 7x + 5$  tại  $x = 1$

2.  $B = 5x^2 - 4xy + 7$  tại  $x = -1$  và  $y = 2$

3.  $C = (x - y)^2 + 2x - y$  tại  $x = 3$  và  $y = 2$

4.  $D = 3x^2 - x + 5$  tại  $x = 4$

5.  $E = 3,2x^5y^3$  tại  $x = 1$  và  $y = -1$

6.  $F = 5x^3y^2$  tại  $x = -1$  và  $y = -1$

7.  $G = 5xy^4$  tại  $x = -3$  và  $y = -1$

8.  $H = \frac{4}{5}xy^3$  tại  $x = 5$  và  $y = -2$

9.  $K = \frac{3}{4}x^2y^3$  tại  $x = 2$  và  $y = \frac{1}{3}$

10.  $L = \frac{2}{5}x^3y$  tại  $x = \frac{1}{2}$  và  $y = 5$

**Bài 3:** Tính

1.  $3x^2y - 7x^2y + 5x^2y$

3.  $4xy^5 - 8xy^5 + 4xy^5$

5.  $9x^2y^5 - 12x^2y^5 + x^2y^5$

7.  $3xy^6 - 5xy^6 - 7xy^6 + xy^6$

9.  $5x^4y^5 - 7x^4y^5 - 5x^4y^5 + x^4y^5$

11.  $x^4y - 5xy^3 + 2xy^3 - 5x^4y$

13.  $-8x^2y^3 + 4x^3y^2 - 4x^3y^2 + 3x^2y^3$

15.  $3xy^2 - 7x^3y + 5xy^2 - 2x^3y$

17.  $\frac{1}{5}x^4y^3 - 3x^4y^3$

19.  $\frac{3}{4}x^4y^7 - 3x^4y^7$

2.  $-7x^3y^4 + 4x^3y^4 - 2x^3y^4$

4.  $5x^5y^7 - 8x^5y^7 - 2x^5y^7$

6.  $-6x^5y + 7x^5y - 3x^5y + x^5y$

8.  $4x^2y - 3x^2y + 3x^2y + 2x^2y$

10.  $15x^7y^3 - 8x^7y^3 - 15x^7y^3$

12.  $10x^3y^5 - 5xy + 5x^3y^5 + 8xy$

14.  $5xy^4 - 5xy + 7xy - 2xy^4$

16.  $4x^3y + \frac{1}{2}x^3y$

18.  $5x^2y^5 - \frac{1}{4}x^2y^5$

20.  $\frac{2}{3}x^3y^4 + 3x^3y^4$

**Bài 4:** Thu gọn các đơn thức sau rồi tìm bậc và hệ số:

1.  $x^3 \left( -\frac{5}{4}x^2y \right) \left( \frac{2}{5}x^3y^4 \right)$

3.  $5xyz \cdot 4x^3y^2 \left( -2x^5y \right)$

5.  $4x^3y \left( -x^2y^5 \right) \left( 2xy \right)$

7.  $\left( -\frac{3}{4}x^5y^4 \right) \left( xy^2 \right) \left( -\frac{8}{9}x^2y^5 \right)$

9.  $\left( -\frac{1}{3}x^2y^5 \right) \left( \frac{3}{4}xy \right) \left( 5x \right)$

2.  $-xy \left( 2x^3y^4 \right) \left( -\frac{5}{4}x^2y^3 \right)$

4.  $-2xy^5 \left( -x^2y^3 \right) \left( 7x^2y \right)$

6.  $-xy^2 \left( -\frac{1}{2}x^3y^4 \right) \left( -\frac{4}{7}x^2y^5 \right)$

8.  $\frac{5}{3}x^2y^4 \left( -\frac{6}{5}xy^3 \right) \left( -xy \right)$

10.  $-5y \left( -\frac{1}{10}xy^2 \right) \left( \frac{2}{3}y \right)$

**Bài 5:** Điền đơn thức thích hợp vào ô trống

1.  $\frac{2}{3}x^3y^4 \left( -3x^4y^5 \right) = \square$

3.  $\frac{2}{3}x^3y^4 \left( -3x^4y^5 \right) = \square$

2.  $\left( -2x^5 \right) \left( 7xy^3 \right) = \square$

4.  $3x^5y^4 - 5x^5y^4 + x^5y^4 = \square$

$$5. -5x^4y + 3x^4y + 4x^4y = \square$$

$$6. -7x^3y^5 + \square = 4x^3y^5$$

$$7. \square + 3x^5y^7 = 2x^5y^7$$

$$8. 8x^4y^3 + \square = 7x^4y^3$$

$$9. 12xy^5 + \square = 8xy^5$$

$$10. 3x^3y^7 - \square = 4x^3y^7$$

**Bài 6:** Rút gọn

$$1. -3x^5y^4 + 3x^2y^3 - 7x^2y^3 + 5x^5y^4$$

$$2. \frac{1}{2}x^4y - \frac{3}{2}x^3y^4 + \frac{5}{3}x^4y - x^3y^4$$

$$3. 5x - 7xy^2 + 3x - \frac{1}{2}xy^2$$

$$4. -\frac{1}{5}x^4y^3 + \frac{3}{4}x^2y - \frac{1}{2}x^2y + x^4y^3$$

$$5. \frac{7}{4}x^5y^7 - \frac{3}{2}x^2y^6 + \frac{1}{5}x^5y^7 + \frac{2}{3}x^2y^6$$

$$6. \frac{1}{3}x^2y^5 \left( -\frac{3}{5}x^3y \right) + x^5y^6$$

$$7. \frac{1}{2}x^4y \left( -\frac{2}{3}x^3y^2 \right) - \frac{1}{3}x^7y^3$$

$$8. 5xy^2 \left( -\frac{3}{10}x^2y \right) + \frac{3}{4}x^3y^3$$

$$9. \frac{1}{7}x^2y^3 \left( -\frac{14}{3}xy^2 \right) - \frac{1}{2}xy(x^2y^4)$$

$$10. \frac{2}{5}x^4y^5 \left( \frac{5}{4}x^2y^3 \right) + \frac{5}{3}x^2y^3 \left( -\frac{9}{10}x^4y^5 \right)$$

$$11. (3xy)^2 \left( -\frac{1}{2}x^3y^2 \right)^3$$

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

$$13. \left( \frac{2}{5}x^3y^4 \right)^2 \left( -\frac{15}{4}xy^5 \right)$$

$$14. \left( \frac{2}{5}x^3y^4 \right)^2 \left( -\frac{15}{4}xy^5 \right)$$

$$15. \left( \frac{3}{2}x^2y^3 \right)^3 \left( -2x^3y^2 \right)^5$$

$$16. \left( \frac{5}{7}x^3y \right)^2 \left( -\frac{14}{15}x^4y \right)$$

$$17. \left( -\frac{1}{2}x^3y^4 \right)^4 \left( -xy^3 \right)^5$$

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

$$19. \left( -2007x^4y^3 \right)^5 \left( -\frac{1}{2007}x^4y \right)^5$$

$$20. \left( -\frac{2007}{3}xy \right)^8 \left( -\frac{6}{2007}x^2y \right)^8$$

$$21. \left( \frac{1}{2}x^3y^4 \right)^3 + \frac{1}{5}x^9y^{12}$$

$$22. \left( \frac{1}{3}x^5y \right)^2 - \frac{2}{3}x^{10}y^2$$

$$23. \left( -\frac{2}{3}xy^2 \right)^3 + \frac{1}{9}x^3y^6$$

$$24. \left( -\frac{3}{2}x^4y^5 \right)^2 - \frac{5}{2}x^8y^{10}$$

$$25. \left(-\frac{5}{4}x^3y^5\right)\left(\frac{2}{5}x\right) - \frac{1}{2}x^4y^5$$

$$26. \left(-\frac{1}{2}x^3y^7\right)^3 + \frac{1}{4}x^9y^{21}$$

$$27. \left(\frac{1}{3}x^2y\right)\left(\frac{6}{5}x^4y^3\right) - (2x^3y^2)^2$$

$$28. \left(\frac{1}{5}x^3y^7\right)\left(-\frac{5}{2}xy^3\right) + \left(-\frac{1}{3}x^2y^5\right)^2$$

$$29. (-2x^3y^4)^3 + \frac{1}{2}x^3y^5\left(-\frac{2}{3}x^6y^7\right)$$

$$30. (-5x^4y^2)^2 - 3xy^4(7x^7)$$

$$31. \frac{1}{5}x^3y^5 - \frac{1}{2}xy + \frac{1}{7}xy - \frac{2}{3}x^3y^5$$

$$32. -\frac{1}{4}xy^2 + \frac{2}{5}x^2y + \frac{1}{2}xy^2 - x^2y$$

$$33. \frac{2}{5}x^3y - \frac{1}{7}x^2y^5 - \frac{1}{2}x^3y + \frac{1}{3}x^2y^5$$

$$34. \frac{1}{4}x - \frac{3}{5}xy - \frac{1}{2}x + \frac{1}{3}xy$$

$$35. \frac{5}{6}x^2y^3 - \frac{1}{2}x^3y^2 + \frac{1}{4}x^3y^2 - \frac{1}{3}x^2y^3$$

$$36. \left(\frac{1}{2}x^5y^7\right)^3 \left(-\frac{2}{3}x^2y^4\right)^2$$

$$37. \left(\frac{5}{4}x^3y^4\right)^5 \left(-\frac{4}{5}xy^2\right)^5$$

$$38. \left(-\frac{2}{3}x^7y^3\right)^2 \left(-\frac{4}{5}xy^2\right)^3$$

$$39. \left(-\frac{1}{53}x^4y^5\right)^7 (-53xy^2)^8$$

$$40. (-15x^5y^4)^8 \left(\frac{1}{15}x^3y\right)^9$$

**Bài 7:** Xét tính đúng sai của các đẳng thức sau:

$$1. 3x^2y^5(-6x^3y^4) = -18x^6y^{20}$$

$$2. -5xy^4(-7x^2y) = 35x^2y^5$$

$$3. 4x^2y^3z(-2xy^4) = -8x^3y^7$$

$$4. 4xyz(-2xy^2) = -12x^2y^3z$$

$$5. 5x^2y + 3x^2y = 8x^4y^2$$

$$6. 7x^4y + 8x^4y = 15x^4y$$

$$7. 3x^5y^2 + 2xy = 5x^6y^3$$

$$8. 10x^5y^7 - 3x^5y^7 = 7x^0y^0$$

$$9. 3x^8y^3 - 7x^2y = -4x^6y^2$$

$$10. 4x^3y^2 - 7x^3y^2 = -3x^3y^2$$

$$11. xy - 3x^2y^4 = xy - 3x^2y^4$$

$$12. 7x^4y + 2x^4y = 9x^4y$$

$$13. 3x(-y^2) + 4xy^2 = x^2y^4$$

$$14. -4x^2(2y) + 5x^2y = -3x^2y$$

$$15. (3x^2y^5z)^2 = 9x^4y^{25}z$$

$$16. (-2xy)^2 = 4xy$$

$$17. (-5x^3y^2z)^3 = -125x^9y^2z^3$$

$$18. \left(-\frac{1}{2}x^2y^5\right)^3 = -\frac{1}{6}x^6y^{15}$$

$$19. \left(-\frac{1}{4}x^3y^7z\right)^3 = -\frac{1}{64}x^9y^{21}z^3$$

$$20. \left(\frac{1}{2}x^3y^5z\right)^3 = \frac{1}{8}x^{23}y^{125}z$$

**Bài 8:** Rút gọn:

$$1. (-11x^5y^7z^4)^2$$

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

$$3. (2x^4y^3z^7)^5$$

$$4. (3x^2y^5z)^3$$

$$5. \left(-\frac{4}{3}x^4y^3z^2\right)^3$$

$$6. \left(-\frac{1}{2}x^2y^5\right)\left(-\frac{2}{5}x^4yz\right)$$

$$7. (-5xy^2)\left(\frac{3}{10}xy\right)\left(\frac{7}{6}yz^2\right)$$

$$8. \left(-\frac{4}{3}xy^3z\right)(-x^2y)\left(\frac{3}{2}xz^2\right)$$

$$9. \left(-\frac{1}{2}x^3y^4\right)\left(\frac{2}{5}xyz\right)\left(\frac{10}{7}xy\right)$$

$$10. \left(-\frac{5}{2}xy^3\right)\left(\frac{2}{3}x^3y^5\right)\left(\frac{1}{4}\right)$$

$$11. \left(-\frac{1}{2}x^4y^3\right)^4 \cdot (-4xy^2)^2$$

$$12. (5x^3y^7)^2 \left(-\frac{1}{5}x^2y^5\right)^3$$

**Bài 9:** Thu gọn các đơn thức rồi cho biết hệ số, phân biến và bậc của các đơn thức sau:

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

$$2. \frac{2}{3}x^2\frac{1}{4}xy \cdot 3y^2\left(-\frac{2}{5}x^3y^4\right)$$

$$3. \left(-\frac{1}{2}x^3y^7\right)^3\frac{4}{7}x^2y^5(7xy^2)^2$$

$$4. 5x^4y\left(-\frac{1}{5}xy^3\right)\left(\frac{1}{2}x^2y^4\right)^3$$

$$5. \left(\frac{1}{3}x^2y^3\right)^2(-9x^2y)\frac{1}{4}y^2$$

$$6. (-2x^4y^3z)^3\left(\frac{1}{4}xy^2\right)$$

$$7. \left(-\frac{1}{7}x^3y^2\right)^2\frac{49}{3}x^5y\left(-\frac{3}{2}\right)^2$$

$$8. \left(\frac{135}{97}x^8y\right)^{10}\left(-\frac{97}{153}x\right)^{10}$$

$$9. \left(\frac{1}{5}x^2y^7z\right)^7(-5xy^3)^7$$

$$10. \left(-\frac{3}{5}x^3y^4z\right)^{12}\left(\frac{5}{3}xy^3\right)^{12}$$

**Bài 10:** Tính giá trị các biểu thức:

$$1. A = 3x^2 - 15x^2 + 8x^2 \text{ với } x = \frac{1}{4}$$

2.  $B = 2x^3y^4 - 5x(xy^2)^2 + xy^2(xy)^2$  với  $x = -1; y = \frac{1}{2}$

3.  $C = -5x^3y(x^2y^2)^2 + 6xy(x^6y^4)$  với  $x = -\frac{1}{3}; y = -3$

4.  $D = (2x^3y^2)^3 - 7x^4y^3(x^5y^3)$  với  $x = \frac{1}{3}; y = -9$

5.  $E = (-3x^4y^7)^2 + x^2y^2(-2x^2y^4)$  với  $x = \frac{1}{4}; y = -2$

6.  $F = 3x^5y(-2xy^3)^2 + (2x^3y^2)^2$  với  $x = -\frac{1}{2}; y = -4$

7.  $G = 5xy^3(-2x^2y)^3 - 6x^5y^2(-7x^2y^4)$  với  $x = -\frac{1}{2}; y = 2$

8.  $H = (-3x^2y^3)^2(-4xy) + 19x^3y^5(-2x^2y^2)$  với  $x = -2; y = 2$

9.  $K = (5x^4y^2)^2(-x^3y) - 11x^7y(-2x^4y^4)$  với  $x = 3; y = \frac{1}{9}$

10.  $L = (2x^3y^2)^2(-5xy^2) + 3x^3y^4(x^4y^2)$  với  $x = 5; y = -\frac{1}{5}$

**Bài 11:** Rút gọn

1.  $2x^2y^5 - 5x^3y - 7x^2y^5 + 4x^3y - 8x^2y^5 + 6x^3y$

2.  $-5x^2y + 12xy^2 + 7xy - 10xy + 3x^2y - 4xy^2$

3.  $15x^2y^3 + 7x^2 - 8x^3y^2 - 12x^2 + 11x^3y^2 - 12x^2y^3$

4.  $\frac{7}{2}x^4y^3 - 5x^2y^5 - 6y + 8x^2y^5 - \frac{1}{3}x^4y^3 - \frac{1}{2}y$

5.  $\frac{4}{3}xy^2 - 2x^3y^5 + \frac{1}{4}xy^2 + 7xy - \frac{1}{5}x^3y^5 - \frac{5}{2}xy$

6.  $\frac{1}{4}x^4y^5 - 2x^3y^2 + \frac{1}{2}x^2y^4 - \frac{1}{3}x^3y^2 + \frac{1}{3}x^2y^4 - x^4y^5$

7.  $5x^2y^3 - \frac{1}{2}xy^2 - \frac{11}{2}x^2y^3 + xy^2 - 3x^3y^4 + \frac{1}{5}x^3y^4$

8.  $4x^5y^7 - \frac{1}{3}x^2y^6 + \frac{1}{2}x^4y - \frac{3}{4}x^5y^7 + x^2y^6 - \frac{1}{6}x^4y$

$$9. \frac{2}{5}xy^2 - 3x^3y + \frac{1}{3}x^4y^3 - \frac{1}{2}x^3y - \frac{1}{4}x^4y^3 + xy^2$$

$$10. 3x^5y - \frac{1}{3}xy^4 + \frac{3}{4}x^2y^3 - \frac{1}{2}x^5y + 2xy^4 - x^2y^3$$

$$11. \frac{5}{4}xy - 3x^2y^7 + \frac{1}{2}xy^3 - \frac{1}{2}xy + \frac{1}{4}x^2y^7 + xy^3$$

$$12. \frac{1}{4}x^2 - \left( \frac{5}{2}x - \frac{7}{5}x^2 - 1 \right) + \left( \frac{5}{2}x - 1 + \frac{1}{2}x \right)$$

$$13. \frac{5}{2}x^2y^5 - \left( \frac{1}{2}x^3y^4 - \frac{3}{2}xy + \frac{5}{2}x^2y^5 \right) + \left( \frac{1}{2}x^3y^4 - \frac{1}{2}xy \right)$$

$$14. \frac{1}{4}x^5y^7 - \left( \frac{1}{3}xy^2 - 3x^2y + \frac{1}{4}x^5y^7 \right) + \left( \frac{1}{3}xy^2 - \frac{1}{4}x^2y \right)$$

$$15. \frac{3}{2}x^3y^5 + \frac{1}{7} + \left( \frac{15}{4}x^2y^3 - \frac{3}{2}x^3y^5 \right) - \left( \frac{1}{7} + \frac{15}{4}x^2y^3 \right)$$

$$16. \frac{5}{3}x^2y^4 - \frac{1}{7}x^3y^2 - xy + \left( \frac{1}{7}x^3y^2 - \frac{5}{3}x^2y^4 + \frac{1}{3}xy \right)$$

$$17. \frac{1}{5}x^5y^4 - \left( \frac{1}{2}x - \frac{1}{5}x^5y^4 + \frac{7}{5}xy^3 \right) + \frac{7}{5}xy^3 + 2x$$

$$18. x^2y^3 - \left( 5x^2y^3 - \frac{75}{2}x^2y^3 + 51x^2y^3 \right) + \left( 5x^2y^3 - \frac{75}{2}x^2y^3 \right)$$

$$19. -\frac{15}{19}x^5y + \frac{7}{9}xy^5 - \left( \frac{7}{9}xy^5 - \frac{15}{19}x^5y + \frac{1}{2}x^3y^2 \right) - x^3y^2$$

$$20. 5,3x^3y^2 - 4x^3y^2 + 2,4x^3y^2 - 3x^3y^2 - 1,5x^3y^2$$

$$21. 5x^4 - 4,3x^4 + 2,7x^4 - 5,7x^4 + 3,4x^4$$

$$22. 2x^3y^7 - \frac{7}{8}x^2y + \frac{5}{3}x^3y^7 + \frac{7}{8}x^2y - \frac{1}{3}x^3y^7$$

$$23. 3x^2yz^3 - \frac{1}{2}xy + \frac{1}{3}x^2yz^3 + xy - \frac{3}{4}x^2yz^3$$

$$24. 8xy - \frac{1}{3}x^2y^5z + \frac{1}{2}x^3 + \frac{1}{2}x^3 - \frac{1}{2}xy + x^2y^5z$$



$$25. -\frac{5}{2}xyz + \frac{1}{3}x^3y^2 + \frac{2}{3}xyz - \frac{3}{2}x^3y^2 - xyz$$

$$26. \frac{1}{3}x^4y^5 - xyz + \frac{1}{2}xyz - \frac{1}{4}x^4y^5 + x^4y^5 - \frac{1}{4}xyz$$

$$27. 5x^3y^4z - \frac{1}{2}xz + \frac{1}{3}xz - \frac{1}{4}x^3y^4z - xz + x^3y^4z$$

$$28. \frac{2}{5}xy - \frac{1}{7}x^3y^2z^3 - xy + \frac{1}{3}x^3y^2z^3 + xy$$

$$29. -\frac{3}{4}xyz^2 - \frac{1}{3}x^2y^7 + \frac{1}{3} - \frac{1}{2}x^2y^7 + \frac{5}{4} + xyz^2$$

$$30. \frac{2}{3}xyz - \frac{1}{4}x^3y + \frac{1}{2}xyz + x^3y - xyz + \frac{1}{2}x^3y$$

**Bài 12:** Điền đơn thức thích hợp vào ô trống:

$$1. 3x^4y^5z + \square = -7x^4y^5z$$

$$2. \square - 3x^4yz^2 = 10x^4yz^2$$

$$3. 5x^3y^4z^5 - 12x^3y^4z^5 + (-4x^3y^4z^5) = \square$$

$$4. \square + 7x^8yz^2 = -17x^8yz^2$$

$$5. -\frac{3}{4}x^3y^6z^5 + \square = -\frac{2}{3}x^3y^6z^5$$

$$6. \frac{1}{2}x^5y^7z \cdot \square = -\frac{5}{3}x^5y^7z$$

$$7. \square \cdot \left(-\frac{1}{2}x^3y^4\right)^2 = -\frac{5}{8}x^7y^{12}z^2$$

$$8. (-2x^2y^5z)^3 \cdot \square = -\frac{3}{4}x^8y^{17}z^5$$

$$9. \left(-\frac{4}{3}x^2y^5z^3\right)^2 \cdot \square = \frac{2}{5}x^7y^{14}z^8$$

**Bài 13:** Thu gọn

$$1. \frac{1}{5}x^2y^7(-10x^3yz^2)\left(\frac{1}{4}x^5y^2z\right)$$

2.  $-3x^4yz\left(-\frac{1}{6}x^3yz^2\right)\left(-\frac{5}{2}x^4y^3z\right)$
3.  $-\frac{1}{4}x^3y^4z^5\left(\frac{8}{9}x^2yz\right)\left(-\frac{3}{5}xyz^3\right)$
4.  $\frac{5}{3}x^4y^3z^5\left(-\frac{3}{10}xy^5z\right)\left(-\frac{2}{7}x^5yz\right)$
5.  $-\frac{1}{2}x^4y^7\left(-\frac{2}{5}xyz\right)\left(\frac{10}{7}xz^3\right)\left(-14y^2z^3\right)$
6.  $\left(-2x^4y^3z^7\right)\cdot\left(\frac{1}{4}xy^5\right)\left(-3x^2yz\right)^3\left(-\frac{1}{27}x^3yz^2\right)$
7.  $\left(-\frac{1}{3}xy^2z\right)^3\left(\frac{4}{5}x^5y^6z\right)\left(-\frac{27}{10}x^2yz^4\right)$
8.  $\left(-7x^5yz^2\right)^2\left(-\frac{1}{4}x^3yz^7\right)\left(\frac{8}{21}x^5z^4\right)$
9.  $\left(-\frac{1}{2}x^2y^3z^4\right)^3\left(-2xyz^2\right)^2\left(-\frac{5}{3}x^4yz\right)$
10.  $\left(\frac{1}{4}x^4y^2z\right)^2\left(-8xyz^2\right)\left(-\frac{1}{2}x^4yz\right)$
11.  $(xy)^2 - \frac{1}{2}x^2y^2 + 3xy^2\left(-\frac{1}{3}x\right)$
12.  $4\left(-\frac{1}{2}x\right)^2 - \frac{3}{2}x(-x) + \frac{1}{3}x^2$
13.  $-4(-2x)^2y^3 + \frac{1}{2}xy(-2xy^2) + \frac{1}{4}x^2y^3$
14.  $\frac{1}{3}x^4y - \frac{5}{3}x^3\left(\frac{5}{2}xy\right) + \frac{3}{4}x^4y$
15.  $\left(-2x^3y^4\right)^2 - 5x^2y\left(\frac{3}{10}x^4y^7\right) - \frac{2}{3}x^6y^8$
16.  $\left(\frac{1}{3}xy\right)^2x^3 + \frac{3}{7}(2x)^3\left(-\frac{7}{4}x^2y^2\right) - \frac{2}{5}x^5y^2$

$$17. -\frac{2}{5}x^2y(-y)^6 + \frac{3}{2}xy\left(-\frac{1}{15}xy^6\right) + (-2xy)^2 y^5$$

$$18. \frac{3}{7}xy^2z + \frac{1}{2}x^3y^2 + \frac{1}{3}x^3y^2 - \frac{3}{7}xy^2z$$

$$19. \frac{2}{3}xy^2 - \frac{5}{2}yz + \frac{1}{2}xy^2 - \frac{2}{3}yz$$

$$20. \frac{3}{2}xy^2z^5 - \frac{5}{4}xyz^2 + \frac{4}{3}xy^2z^5 + \frac{1}{2}xyz^2$$

$$21. -1\frac{1}{2}x^2y^5 + 2\frac{2}{3}x^3y - 2\frac{1}{3}x^2y^5 - 2\frac{2}{3}x^3y$$

$$22. 2\frac{1}{3}x^5y - 3\frac{1}{3}x - 3x^5y + 1\frac{1}{2}x$$

$$23. -3\frac{2}{3}xy^4 + 2\frac{1}{3}y^4 - 2\frac{1}{3}y^4 + 3\frac{1}{3}xy^4$$

$$24. 3\frac{1}{2}x^3y - 1\frac{1}{3}y(-x)^3 + \left(-\frac{8}{9}x^3y\right)$$

$$25. -\frac{1}{2}xy^2z + 3x^3y^2 + 2xy^2z - \frac{3}{4}x^3y^2$$

$$26. -xy^2 + \frac{5}{2}y^4z^2 + 2\frac{1}{2}xy^2 - 1\frac{2}{3}x^4z^2$$

$$27. 1\frac{2}{3}x^3y\left(-\frac{1}{2}xy^2\right) - \frac{5}{4} \cdot \frac{8}{15}x^3y\left(-\frac{1}{2}xy^2\right)^2$$

$$28. -\frac{3}{2}xy^2\left(\frac{3}{4}x^2y\right)^2 - \frac{3}{5}xy\left(-\frac{1}{3}x^4y^3\right) + (-x^2y^2)^2(xy^2)$$

$$29. -1\frac{1}{2}(xy)^2x^3 + \frac{3}{5}(-x)^3\left(\frac{5}{3}xy\right)^2 + \frac{5}{4}x\left(-\frac{4}{5}x^4y^2\right)$$

$$30. -2\frac{1}{5}xy(-5x)^2 + \frac{3}{4}y\left(\frac{2}{3}\right)(-x)^3 - \frac{1}{8}(-x)^3\left(\frac{1}{3}y\right)$$

$$31. -\frac{1}{4}x^3(-2xy^2)^3\left(-\frac{5}{3}x^2y\right)^2\left(\frac{9}{10}x^3y^5\right)$$

$$32. -\frac{4}{5}y^3\left(-\frac{5}{2}x^3y^5\right)^2\left(-\frac{1}{5}x^4y^7\right)$$

$$33. \left(-\frac{2}{3}x^3y\right)\left(\frac{9}{4}x^2y\right)\left(-\frac{5}{7}x^6y^7\right)$$

$$34. -\frac{8}{7}x^5y^4z^2\left(-\frac{21}{4}xy\right)\left(-\frac{2}{3}x^5y^2\right)\left(-\frac{5}{2}xz^3\right)$$

$$35. (-3x^2y^2)^3\left(\frac{1}{3}x^3y\right)^2\left(-\frac{5}{4}xy^5\right)\left(\frac{10}{3}x^3yz^2\right)$$

$$36. -\frac{9}{8}x^2y^3z\left(-\frac{2}{3}y^3z^4\right)^3\left(\frac{7}{5}xz^2\right)\left(\frac{1}{14}xy^2z^3\right)$$

$$37. (-27xy^2z^4)\left(\frac{1}{3}x^2y\right)^2(-4x^2y^5z)\left(\frac{1}{2}xz^3\right)^2$$

$$38. \left(-\frac{2}{5}x^3yz^2\right)^3(25xy^2z)\left(-\frac{1}{2}x^4yz^5\right)$$

$$39. \left(\frac{9}{4}x^2y^4z^3\right)^2\left(-\frac{2}{3}xz^3\right)^3\left(\frac{5}{3}x^2y^3z\right)$$

$$40. 1\frac{2}{3}x^2(y^2z^2)^2\left(-\frac{1}{5}x^3z\right)\left(-\frac{3}{7}y^2z\right)\left(\frac{7}{6}xy\right)$$

$$41. \left(-\frac{1}{3}xy^2\right)^2(3x^2y)^3\left(-\frac{5}{2}xy^2z^2\right)^2$$

$$42. \left(-\frac{7}{3}x^5z^4\right)^3\left(\frac{4}{7}xy^4\right)^2\left(-\frac{9}{5}yz\right)$$

$$43. -2y|-2|x^4y^5.\left|-\frac{3}{4}\right|x^3y^2z$$

$$44. (-9x^3y^5z)^2\left(-\frac{1}{2}x^3yz^2\right)^2\left(-\frac{2}{3}x^3y\right)^3$$

$$45. -4y^3z^7\left(-\frac{1}{2}x^4yz\right)^3\left(-\frac{3}{2}x\right)\left(\frac{4}{9}y^2\right)$$