

HW  
8-8-21

Ex 19(C)

i) Fill in the blanks:

ii)  $6 \times 3 = \underline{18}$  and  $6x \times 3x = \underline{18x^2}$

iii)  $6 \times 3 = \underline{12}$  and  $6x^2 \times 3x^2 = \underline{12x^2y^2}$

iv)  $5 \times 4 = \underline{20}$  and  $5x \times 4y = \underline{20xy}$

v)  $4 \times 7 = \underline{28}$  and  $4ax \times 7x = \underline{28ax^2}$

vi)  $6 \times 2 = \underline{12}$  and  $6xy \times 2xy = \underline{12x^2y^2}$

vii)  $12 \times 4 = \underline{48}$  and  $12ax^2 \times 4ax = \underline{48a^2x^3}$

viii)  $1 \times 8 = \underline{8}$  and  $a^2xy^2 \times 8a^3x^2y = \underline{8a^5x^3y^3}$

ix)  $15 \times 3 = \underline{45}$  and  $15x \times 3x^5y^2 = \underline{45x^6y^2}$

2) Fill in the blanks:

i)  $4x \times 5x \times 2 = \underline{40x^2}$

ii)  $3ab \times 6ax = \underline{18a^2bx}$

iii)  $x \times 2x^2 \times 3x^3 = \underline{6x^6}$

iv)  $5 \times 5a^3 = \underline{25a^3}$

v)  $6 \times 6x^2 \times 6x^2y^2 = \underline{216x^4y^2}$

vi)  $-8x \times -3x = \underline{24x^2}$

vii)  $-5x - 3x \times 5x^2 = \underline{-25x^3}$

viii)  $8x - 4xy^2 \times 3x^3y^2 = \underline{-12x^4y^4}$

ix)  $-4x \times 5xy \times 3z = \underline{-60x^2yz}$

x)  $5x \times 7x^2y \times -7y^3 \times 2x^3y^2 = \underline{-140x^6y^5}$

3) Find the value of:

i)  $3x^5 \times 5x^4 = \underline{15x^9}$

ii)  $5a^2 \times 7a^7 = \underline{35a^9}$

iii)  $3abc \times 6abc^4 = \underline{18a^2b^2c^5}$

iv)  $a^2b^2 \times 5a^3d^4 = \underline{5a^5b^2d^4}$

v)  $2x^2y^3 \times 5x^3y^4 = \underline{10x^5y^7}$

vi)  $abc \times bcd = \underline{ab^2cd^2}$



4.

Multiply:

- i)  $a+b$  by  $ab = a^2b + ab^2$
- ii)  $3a+b$  by  $2x = 6ax + 2bx$
- iii)  $2x+y$  by  $4b = 8bx + 4by$
- iv)  $4x+2y$  by  $3xy = 12x^2y + 6xy^2$
- v)  $x^2-x$  by  $2x = 2x^3 - 2x^2$
- vi)  $1+4x$  by  $x = x + 4x^2$
- vii)  $9x^2y + 3x^2y$  by  $5xy = 45x^3y + 15x^3y$
- viii)  $6x-5y$  by  $3ax = 18ax^2 - 15axy$

8)  
i)  
ii)  
iii)  
iv)  
v)  
vi)

5)

Multiply:

- i)  $a+b$  by  $x+y-z$  and  $-2x = 2x^2 + 2xy - 2xz - 2xy - y^2 + 2yz + 2xz$
- ii)  $xy = yz$  and  $x^2y^2z = 3xy^2z - x^2yz^2$
- iii)  $2xy^2 + 3xy$  and  $-2y^2z = -4xy^3z - 6xy^3z$
- iv)  $-3xy^2 + 4x^2y$  and  $-xy = 3x^2yz^3 - 4xy^3z^2$
- v)  $4xy$  and  $-x^2y - 3x^2yz = -4x^3yz - 12x^3yz$

9)  
i)  
ii)  
iii)  
iv)  
v)

6)

Multiply:

- i)  $3a+4b-5c$  and  $3a = 9a^2 + 12ab - 15ac$
- ii)  $-5xy$  and  $-xy^2 - 6x^2y = 5x^3y^3 + 30x^3y^2$

Hw  
10-8-2

7)

Multiply:

- i)  $x+2$  and  $x+6 = x^2 + 8x + 12$
- ii)  $x+5$  and  $x-3 = x^2 + 2x - 15$
- iii)  $x-5$  and  $x+3 = x^2 - 2x - 15$
- iv)  $x-5$  and  $x-3 = x^2 - 8x + 15$
- v)  $2x+y$  and  $x+3y = 2x^2 + 7xy + 3y^2$
- vi)  $3x-5y$  and  $x+6y = 3x^2 + 13xy - 30y^2$
- vii)  $x+9y$  and  $x-5y = x^2 + 4xy - 45y^2$
- viii)  $2x+5y$  and  $2x+5y = 4x^2 + 20xy + 25y^2$

i)  
ii)  
iii)  
iv)  
v)  
vi)  
vii)  
viii)



- 8) Multiply:
- i)  $3abc$  and  $-5a^2b^2c = -15a^3b^2c^2$
  - ii)  $x-y+z$  and  $-2x = -2x^2 + 2xy - 2xz$
  - iii)  $2x-3y-5z$  and  $-7y = -14xy + 21y^2 + 35yz$
  - iv)  $-8xy^2 + 10x^2yz^2$  and  $x^2yz^2 = -8x^3y^3z^4 + 10x^4y^2z^4$
  - v)  $xy^2$  and  $-13xy^2 + 13x^2yz - 6xy^2z = -13x^2y^4z + 13x^3y^2z^2 - 6x^2y^4z^2$
  - vi)  $4abc$   $5a^2bc = 20a^3b^2c^2$  and  $-2abc^2 = -4a^2b^2c^3 + 10a^3b^2c^3 + 12a^2b^3c^3$

- 9) Find the product of:
- i)  $xy-ab$  and  $xy+ab = x^2y^2 - a^2b^2$
  - ii)  $2ab-3xy$  and  $2abc+3xy = 4a^2b^2c^2 - 9x^2y^2$
  - iii)  $a+b-c$  and  $2a-3b = 2a^2 - 4b - 2ac - 3b^2 + 3bc$
  - iv)  $3x-6y+z$  and  $2x+3y = 10x^2 + 3xy - 14xz - 18y^2$
  - v)  $3x-6y-z$  and  $2x+3y+z = 10x^2 + 3xy - 4xz - 18y^2 - z^2$
  - vi)  $2a+3b-4c$  and  $a-b-c = 2a^2 + 4ab - 6ac - 3b^2 + 4c^2$

Hw  
10.8.21

Ex 19 (D)

- 1) Divide:
- i)  $3a$  by  $a = 3$
  - ii)  $15x$  by  $3x = 5$
  - iii)  $16m$  by  $4 = 4m$
  - iv)  $20x^2$  by  $5x = 4x$
  - v)  $30x^2$  by  $10x^2 = 3$
  - vi)  $14a^3b^3$  by  $2a^2 = 7ab^3$
  - vii)  $18x^2y^2$  by  $3x = 6xy^2$
  - viii)  $100$  by  $50b = \frac{2}{b}$

2) Simplify:

i)  $2x^5 \div x^2 = 2x^3$

ii)  $6a^3 \div 3a^3 = 2a^0$

iii)  $20xy \div 5xy = 4$

iv)  $-24a^2b^2c^2 \div 6abc = -4abc$

v)  $-5x^2y \div xy^2 = -\frac{5x}{y}$

vi)  $40p^3q^4r^5 \div 10p^3q = 4q^3r^5$

vii)  $-64x^4y^3z \div 4x^3y^2z = -16xy$

viii)  $33x^2y^5 \div 7x^2y^4 = \frac{33y}{7}$

3) Divide:

i)  $\frac{-3m}{4} \text{ by } 2m = \frac{-3}{8}$

ii)  $-13p^6q^8 \text{ by } -5p^6q^7 = 3q$

iii)  $21m^5n^7 \text{ by } 7m^2n^2 = 3m^3n^5$

iv)  $36a^4x^3y^6 \text{ by } 4x^2a^3y^2 = 9ax^2y^4$

v)  $20x^3ab \text{ by } 5xy = \frac{4x^2ab}{y}$

vi)  $\frac{28a^2b^3}{c^2} \text{ by } 4abc = \frac{7ab^2}{c^3}$

vii)  $\frac{2a^2}{9b^2} \text{ by } \frac{3b}{2a} = \frac{4a^3}{27b^3}$

viii)  $\frac{-55x}{4} \text{ by } \frac{11x}{4} = -\frac{5}{2} = -2.5x$

ix)  $\frac{64x^2y^2}{22} \text{ by } \frac{8xy}{2} = \frac{8xy}{2}$



49. Simplify:

$$i) \frac{15m^3n^2 - 3m^3}{-3m^3} = \frac{15m^3n^2}{-3m^3} = -5n^2$$

$$ii) \frac{35x^4y^2 - 15x^2y^2}{-15x^2y^2} = \frac{35x^4y^2}{-15x^2y^2} = \frac{7x^2}{3}$$

$$iii) \frac{-24x^6y^2}{6x^6y} = \frac{-24x^6y^2}{6x^6y} = -4y$$

57. Divide:

$$i) 9x^3 - 6x^2 \text{ by } 3x = 3x^2 - 2x$$

$$ii) 6m^2 - 16m^3 + 10m^4 \text{ by } -2m = -3m + 8m^2 - 5m^3$$

$$iii) 15x^3y^2 + 25x^2y^3 - 36x^4y^4 \text{ by } 5x^2y^2 = 3x + 5y - \frac{36}{5}x^2y^2$$

$$iv) 36a^3x^5 - 19a^4x^4 + 18a^5x^3 \text{ by } -6a^3x^3 = -6x^2 + 4ax - 3a^2$$