

Hw  
4/10/21

Ex-19(c)

2) i)  $4x \times 6x \times 2 = 4 \times 6 \times 2 \times x \times x = 48x^2$

ii)  $3ab \times 6ax = 3 \times 6 \times a \times a \times b \times x = 18a^2bx$

iii)  $x \times 2x^2 \times 3x^3 = 1 \times 2 \times 3 \times x^{1+2+3} = 6x^6$

iv)  $5 \times 5a^3 = 25a^3$

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

vi)  $-8x \times -3x = +8 \times 3 \times x^{1+1} = 24x^2$

vii)  $-5 \times 3x \times 5x^2 = -5 \times 3 \times 5 \times x^{1+2} = -75x^3$

viii)  $8x \times -4xy^2 \times 3x^3y^2 = 8 \times -4 \times 3 \times x^{1+3} \times y^{2+2} = -96x^4y^4$

ix)  $-4x \times 5xy \times 3z = -4 \times 5 \times 3 \times x^{1+1} \times y \times z = -60x^2yz$

x)  $5x \times 2x^2y \times -7y^3 \times 2x^3y^2 = 5 \times 2 \times -7 \times 2 \times x^{1+2+3} \times y^{1+3+2} = -140x^8y^6$

3) i)  $3x^3 \times 5x^4$

Sol)  $= 3 \times 5 \times x^{3+4}$   
 $= 15x^7$

ii)  $5a^2 \times 7a^7$

Sol)  $= 5 \times 7 \times a^{2+7}$   
 $= 35a^9$

iii)  $3abc \times 6ac^3$

Sol)  $= 3 \times 6 \times a^{1+1} \times b \times c^{1+3}$   
 $= 18a^2bc^4$

iv)  $a^2b^2 \times 5a^3b^4$

Sol)  $= 5 \times a^{2+3} \times b^{2+4}$   
 $= 5a^5b^6$

v)  $2x^2y^3 \times 5x^3y^4$

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

vi)  $abc \times bcd$

Sol)  $= a \times b^{1+1} \times c^{1+1} \times d$   
 $= ab^2c^2d$

7)  $x+2$  and  $x+10$

Sol)  $= (x+2) \times (x+10)$   
 $= x \times (x+2) + 10 \times (x+2)$   
 $= x^2 + 2x + 10x + 20$   
 $= x^2 + 12x + 20$

ii)  $x+5$  and  $x-3$

Sol)  $= (x+5) \times (x-3)$   
 $= x \times (x+5) - 3 \times (x+5)$   
 $= x^2 + 5x - 3x - 15$   
 $= x^2 + 2x - 15$

Solution

$$\begin{aligned} \text{iii)} & (x-5) \times (x+3) \\ & = x \times (x-5) + 3 \times (x-5) \\ & = x^2 + 5x - 3x - 15 \\ & = x^2 - 2x - 15 \end{aligned}$$

$$\begin{aligned} \text{iv)} & (x-5) \times (x-3) \\ & = x \times (x-5) - 3 \times (x-5) \\ & = x^2 - 5x - 3x + 15 \\ & = x^2 - 8x + 15 \end{aligned}$$

$$\begin{aligned} \text{v)} & (2x+y) \times (x+3y) \\ & = x \times (2x+y) + 3y \times (2x+y) \\ & = 2x^2 + xy + 6xy + 3y^2 \\ & = 2x^2 + 7xy + 3y^2 \end{aligned}$$

$$\begin{aligned} \text{vi)} & (3x-5y) \times (x+6y) \\ & = x \times (3x-5y) + 6y \times (3x-5y) \\ & = 3x^2 - 5xy + 18xy - 30y^2 \\ & = 3x^2 + 13xy - 30y^2 \end{aligned}$$

$$\begin{aligned} \text{vii)} & (x+9y) \times (x-5y) \\ & = x \times (x+9y) - 5y \times (x+9y) \\ & = x^2 + 9xy - 5xy - 45y^2 \\ & = x^2 + 4xy - 45y^2 \end{aligned}$$

$$\begin{aligned} \text{viii)} & (2x+5y) \times (2x+5y) \\ & = 2x \times (2x+5y) + 5y \times (2x+5y) \\ & = 4x^2 + 10xy + 10xy + 25y^2 \\ & = 4x^2 + 20xy + 25y^2 \end{aligned}$$

Ex-19'D'

2i)  $2x^5 \div x^2$   
Sol)  $\frac{2x^5}{x^2} = 2x^{5-2} = 2x^3$

ii)  $6a^8 \div 3a^3$   
Sol)  $\frac{6a^{8-3}}{3 \cdot 1} = 2a^5$

iii)  $20xy \div -5xy$   
Sol)  $\frac{20xy}{-5xy} = -4$

iv)  $-24a^2b^2c^2 \div 6ab$   
Sol)  $\frac{-24a^{2-1}b^{2-1}c^2}{6ab} = -4abc^2$

v)  $-5x^2y \div xy^2$   
Sol)  $\frac{-5x^{2-1}y^{1-2}}{xy^{2-1}} = \frac{-5x}{y}$

vi)  $40p^3q^4r^5 \div 10p^3q$   
Sol)  $\frac{40p^{3-3}q^{4-1}r^5}{10 \cdot 1} = 4q^3r^5$

vii)  $-64x^4y^3z \div 4x^3y^2z$   
Sol)  $\frac{-64x^{4-3}y^{3-2}z}{4} = -16xy^1z$

viii)  $35xy^5 \div 7x^2y^4$   
Sol)  $\frac{35xy^{5-4}}{7x^{2-1}} = \frac{5y}{2x}$

3i)  $\frac{3m}{4} \div 2m$   
Sol)  $\frac{-3m}{4 \times 2m} = -\frac{3}{8}$

ii)  $-15p^6q^8 \div -5p^6q^7$   
Sol)  $\frac{-15p^{6-6}q^{8-7}}{-5} = 3q^1 = 3q$

iii)  $-21m^5n^7 \div 14m^2n^2$   
Sol)  $\frac{-21m^{5-2}n^{7-2}}{14} = -\frac{3}{2}m^3n^5$

iv)  $36a^4x^5y^6 \div 4x^2a^3y^2$   
Sol)  $\frac{36a^{4-3}x^{5-2}y^{6-2}}{4} = 9a^1x^3y^4$

v)  $20x^3a^6 \div 5xy$   
Sol)  $\frac{20x^{3-1}a^6}{5y} = \frac{4x^2a^6}{y}$

vi)  $28a^2b^3 \div 4abc$   
Sol)  $\frac{28a^{2-1}b^{3-1}}{4b^1c^1} = \frac{7ab^2}{c}$

vii)  $\frac{2a^2}{9b^2} \div 3b$   
Sol)  $\frac{2a^2}{9b^2} \times \frac{2a}{3b} = \frac{2 \times 2a^{2+1}}{9 \times 3b^{2+1}} = \frac{4a^3}{27b^3}$

viii)  $\frac{-5 \cdot 5x^2}{y} \div \frac{11x}{y}$   
Sol)  $\frac{-55x^2 \times y}{10y \cdot 11x} = \frac{-5x}{10} = -0.5x$

ix)  $64x^2y^2 \div 8xy$   
Sol)  $\frac{64x^{2-1}y^{2-1}}{8} = \frac{8xy}{1} = 8xy$

Teacher's Signature.....