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~~48~~

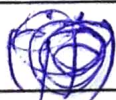
ex || (A)

48

$\frac{12}{36}$

~~(i)  $3x \times 5x^2y \times 2y$~~

~~$= 30x^3y^2$~~



(i)  $3x \times 5x^2y \times 2y$

$= 30x^3y^2$

(ii)  $5 \times 3a \times 2ab^2$

$$= 30a^2b^2$$

$$(iii) (5x+2y) \times 3xy$$

$$= 3xy \times 5x + 3xy \times 2y$$

$$= 15x^2y + [(3 \times 5) \times x^2y] + [(3 \times 2) \times y^2x]$$

$$= 15x^2y + 6y^2x$$

~~$$(i) 6a-5b \times$$~~

$$(iv) 6a-5b \times (-2a)$$

$$= (6a-5b) \times (-2a)$$

$$= (-2a) \times 6a + (-2a) \times (-5b)$$

$$= (-12)a^2 + 10ab$$

$$(v) 4a+5b \times 4a-5b$$

~~$$= 4a \times 4a \times 5b - 5b$$~~

~~$$= 16a^2$$~~

~~$$= 4a \times 4a + 5b \times 5b$$~~

~~$$= 16a^2 + 25b^2$$~~

$$(vi) 9xy + 2y^2 \times 2x^{-3}y$$

(iii)  $5x + 2y$

(iv)  $(6a - 5b) \times (-2a)$

$= (-2a) \times 6a - (-2a) \times 5b$

$= (-12a^2) - (-10ab)$

$= (-12a^2) + 10ab$

(v)  $(4a + 5b) \times (4a - 5b)$

$= (4a + 5b) \times (4a - 5b)$

$= 4a \times (4a - 5b) + 5b \times (4a - 5b)$

$= 16a^2 - 20ab + 20ab - 25b^2$

$= 16a^2 - 25b^2$

(vi)  $(9xy + 2y^2) \times (2x - 3y)$

$= (9xy + 2y^2) \times (2x - 3y)$

$= 2x \times (9xy + 2y^2) - 3y \times (9xy + 2y^2)$

$= 18x^2y + 4xy^2 - 27xy^2 + 6y^3$

$= 18x^2y - 23xy^2 + 6y^3$

(vii)  $(-3m^2n + 5mn - 4m^2) \times 6m^2n$

$= 6m^2n \times (-3m^2n + 5mn - 4m^2)$

$= [6m^2n \times (-3m^2n)] + [6m^2n \times 5mn] - [6m^2n \times 4m^2]$

$= -18m^4n^2 + 30m^3n^2 - 24m^3n^2$

$= -18m^4n^2 + 30m^3n^2 - 24m^3n^2$

(viii)  $(6xy^2 - 7x^2y^2 + 10x^3) \times (-3x^2y^3)$

$= (-3x^2y^3) \times (6xy^2 - 7x^2y^2 + 10x^3)$

$= [(-3x^2y^3) \times (6xy^2)] - [(-3x^2y^3) \times (7x^2y^2)] + [(-3x^2y^3) \times (10x^3)]$

$= -18x^3y^5 - (-21)x^4y^5 + (-30)x^5y^3$

$= -18x^3y^5 + 21x^4y^5 - 30x^5y^3$

$$\begin{array}{r} 2a+2b \\ \times -3xy \\ \hline (-9)axy + (-6)byx \end{array}$$

$$\begin{array}{r} 2 \cdot i) \quad 3a+2b \\ \times -3xy \\ \hline (-9)axy - 6byx \end{array}$$

$$\begin{array}{r} (ii) \quad 9x-5y \\ \times -3xy \\ \hline -27x^2y + 15xy^2 \end{array}$$

$$\begin{array}{r} (iii) \quad 3xy-2x^2-6x \\ \quad \quad -5x^2y \\ \hline -15x^3y^2 + 10x^2y + 30x^3y \end{array}$$

$$\begin{array}{r} (iv) \quad \begin{array}{r} a+b \\ \times a+b \\ \hline a^2+ab \\ \quad +ba+ab \\ \hline a^2+2ab+ab^2 \end{array} \end{array}$$

$$\begin{array}{r} (v) \quad \begin{array}{r} ax-b \\ \times 2ax+2b^2 \\ \hline 2a^2x^2-2axb \\ \quad \quad +2axb^2-2b^3 \\ \hline 2a^2x^2-2axb+2axb^2-2b^3 \end{array} \end{array}$$

$$\begin{array}{r} (iv) \quad \begin{array}{r} 2a-b+3c \\ \times 2a-4b \\ \hline 6ac-2ab+2a^2 \end{array} \end{array}$$

$$\begin{array}{r} (vi) \quad \begin{array}{r} 2a-b+3c \\ \times 2a-4b \\ \hline 4a^2-2ab+6ac \\ \quad -8ab \quad +4b^2-12cb \\ \hline 4a^2-10ab+6ac+4b^2-12cb \end{array} \end{array}$$

$$\begin{array}{r} (vii) \quad \begin{array}{r} 3m^2+6m-2n \\ \times 5n-3m \\ \hline 15m^2n+30mn-10n^2 \\ \quad -9m^3+18m^2+6m^2 \\ \hline 15m^2n+30mn-10n^2-9m^3+24m^2 \end{array} \end{array}$$

$$\begin{array}{r} (viii) \quad \begin{array}{r} 3m^2+6m-2n \\ \times 5n-3m \\ \hline 15m^2n+30mn-10n^2 \\ \quad -9m^3+18m^2 \end{array} \end{array}$$

$$\begin{array}{r} (viii) \quad \begin{array}{r} 3m^2+6m-2n \\ \times 5n-3m \\ \hline 15m^2n+30mn-10n^2 \\ \quad +6mn \quad -9m^3-18m^2 \\ \hline 15m^2n+36mn-10n^2-9m^3-18m^2 \end{array} \end{array}$$

~~(VII)~~

$$\begin{array}{r}
 6 - 3x + 2x^2 \\
 \times 1 + 5x - x^2 \\
 \hline
 -6x^2 + 3x^3 - 2x^4 \\
 -15x^2 + 10x^3 + 30x \\
 \hline
 2x^2 - 3x + 6 \\
 -19x^2 + 13x^3 - 2x^4 - 27x + 6
 \end{array}$$

(VII)

$$\begin{array}{r}
 6 - 3x + 2x^2 \\
 \times 1 + 5x - x^2 \\
 \hline
 6 - 3x + 2x^2 \\
 + 30x + 10x^3 \\
 \hline
 -15x^2 + 3x^3 - 2x^4 \\
 6 + 27x - 4x^2 + 13x^3 - 2x^4
 \end{array}$$

VIII)

$$\begin{array}{r}
 6 - 3x + 2x^2 \\
 1 + 5x - x^2 \\
 \hline
 6 - 3x + 2x^2 \\
 + 30x - 15x^2 + 10x^3 \\
 - 6x^2 + 3x^3 - 2x^4 \\
 \hline
 6 + 27x - 19x^2 + 13x^3 - 2x^4
 \end{array}$$

~~VIII) 6 - 3x~~

IX)

$$\begin{array}{r}
 4x^3 - 10x^2 + 6x - 8 \\
 3 + 2x - x^2 \\
 \hline
 -24 + 18x - 30x^2 + 12x^3 \\
 -16x + 12x^2 - 20x^3 + 8x^4 \\
 \hline
 8x^2 - 6x^3 + 10x^4 - 4x^5 \\
 -24 + 2x - 10x^2 - 14x^3 + 18x^4 - 4x^5
 \end{array}$$

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-12  
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