



### Algebraic Expressions and Identities Ex 6.3 Q17

**Answer :**

To multiply algebraic expressions, we use commutative and associative laws along with the law of indices, i.e.,  $a^m \times a^n = a^{m+n}$ .

We have:

$$\begin{aligned}(2.3xy) \times (0.1x) \times (0.16) \\&= (2.3 \times 0.1 \times 0.16) \times (x \times x) \times y \\&= (2.3 \times 0.1 \times 0.16) \times (x^{1+1}) \times y \\&= 0.0368x^2y\end{aligned}$$

Thus, the answer is  $0.0368x^2y$ .

### Algebraic Expressions and Identities Ex 6.3 Q18

**Answer :**

We have to find the product of the expression in order to express it as a monomial.

To multiply algebraic expressions, we use commutative and associative laws along with the law of indices, i.e.,  $a^m \times a^n = a^{m+n}$ .

We have:

$$\begin{aligned}(3x) \times (4x) \times (-5x) \\&= \{3 \times 4 \times (-5)\} \times (x \times x \times x) \\&= \{3 \times 4 \times (-5)\} \times (x^{1+1+1}) \\&= -60x^3\end{aligned}$$

Substituting  $x = 1$  in LHS, we get:

$$\begin{aligned}\text{LHS} &= (3x) \times (4x) \times (-5x) \\&= (3 \times 1) \times (4 \times 1) \times (-5 \times 1) \\&= -60\end{aligned}$$

Putting  $x = 1$  in RHS, we get:

$$\begin{aligned}\text{RHS} &= -60x^3 \\&= -60(1)^3 \\&= -60 \times 1 \\&= -60\end{aligned}$$

$\therefore$  LHS = RHS for  $x = 1$ ; therefore, the result is correct

Thus, the answer is  $-60x^3$ .

### Algebraic Expressions and Identities Ex 6.3 Q19

**Answer :**

We have to find the product of the expression in order to express it as a monomial.

To multiply algebraic expressions, we use commutative and associative laws along with the law of indices, i.e.,  $a^m \times a^n = a^{m+n}$ .

We have:

$$\begin{aligned}(4x^2) \times (-3x) \times \left(\frac{4}{5}x^3\right) \\&= \left\{4 \times (-3) \times \frac{4}{5}\right\} \times (x^2 \times x \times x^3) \\&= \left\{4 \times (-3) \times \frac{4}{5}\right\} \times (x^{2+1+3}) \\&= -\frac{48}{5}x^6\end{aligned}$$

$$\therefore (4x^2) \times (-3x) \times \left(\frac{4}{5}x^3\right) = -\frac{48}{5}x^6$$

Substituting  $x = 1$  in LHS, we get:

$$\begin{aligned}\text{LHS} &= (4x^2) \times (-3x) \times \left(\frac{4}{5}x^3\right) \\&= \left(4 \times 1^2\right) \times (-3 \times 1) \times \left(\frac{4}{5} \times 1^3\right) \\&= 4 \times (-3) \times \frac{4}{5} \\&= -\frac{48}{5}\end{aligned}$$

Putting  $x = 1$  in RHS, we get:

$$\begin{aligned}\text{RHS} &= -\frac{48}{5}x^6 \\&= -\frac{48}{5} \times 1^6 \\&= -\frac{48}{5}\end{aligned}$$

$\therefore$  LHS = RHS for  $x = 1$ ; therefore, the result is correct

Thus, the answer is  $-\frac{48}{5}x^6$ .

\*\*\*\*\* END \*\*\*\*\*