Factorizations Ex 7.2 Q14

Answer :

The greatest common factor of the terms $16m$ *and* $4m^2$ *of the expression* $16m - 4m^2$ *is* $4m$.

Also, we can write $16m = 4m \times 4$ *and* $4m^2 = 4m \times m$.

$$\therefore\ 16m - 4m^2 = 4m \times 4 - 4m \times m$$
$$= 4m(4 - m)$$

Factorizations Ex 7.2 Q15

Answer :

The greatest common factor of the terms $-4a^2$, $4ab$ *and* $-4ca$ *of the expression* $-4a^2 + 4ab - 4ca$ *is* $-4a$.

Also, we can write $-4a^2 = -4a \times a$, $4ab = -4a \times (-b)$ *and* $4ca = -4a \times c$.

$$\therefore\ -4a^2 + 4ab - 4ca = -4a \times a + (-4a) \times (-b) - 4a \times c$$
$$= -4a(a - b + c)$$

Factorizations Ex 7.2 Q16

Answer :

The greatest common factor of the terms x^2yz, xy^2z *and* xyz^2 *of the expression* $x^2yz + xy^2z + xyz^2$ *is* xyz.

Also, we can write $x^2yz = xyz \times x$, $xy^2z = xyz \times y$ *and* $xyz^2 = xyz \times z$.

$$\therefore\ x^2yz + xy^2z + xyz^2 = xyz \times x + xyz \times y + xyz \times z$$
$$= xyz(x + y + z)$$

Factorizations Ex 7.2 Q17

Answer :

The greatest common factor of the terms ax^2y, bxy^2 *and* $cxyz$ *of the expression* $ax^2y + bxy^2 + cxyz$ *is* xy.

Also, we can write $ax^2y = xy \times ax$, $bxy^2 = xy \times by$ *and* $cxyz = xy \times cz$.

$$\therefore\ ax^2y + bxy^2 + cxyz = xy \times ax + xy \times by + xy \times cz$$
$$= xy(ax + by + cz)$$

********** END **********