

### Factorizations Ex 7.2 Q10

### Answer:

The greatest common factor of the terms  $a^4b$ ,  $3a^2b^2$  and  $6ab^3$  of the expression  $a^4b - 3a^2b^2 - 6ab^3$  is ab.

Also, we can write  $a^4b = ab \times a^3$ ,  $3a^2b^2 = ab \times 3ab$  and  $6ab^3 = ab \times 6b^2$ .

$$\therefore a^{4}b - 3a^{2}b^{2} - 6ab^{3} = ab \times a^{3} - ab \times 3ab - ab \times 6b^{2}$$
$$= ab(a^{3} - 3ab - 6b^{2})$$

# Factorizations Ex 7.2 Q11

#### Answer:

The greatest common factor of the terms  $2l^2mn$ ,  $3lm^2n$  and  $4lmn^2$  of the expression  $2l^2mn - 3lm^2n + 4lmn^2$  is lmn.

Also, we can write  $2l^2mn = lmn \times 2l$ ,  $3lm^2n = lmn \times 3m$  and  $4lmn^2 = lmn \times 4n$ .

$$\therefore 2l^2nm - 3lm^2n + 4lmn^2 = lmn \times 2l - lmn \times 3m + lmn \times 4n$$
$$= lmn(2l - 3m + 4n)$$

## Factorizations Ex 7.2 Q12

### Answer:

The greatest common factor of the terms  $x^4y^2$ ,  $x^2y^4$  and  $x^4y^4$  of the expression  $x^4y^2 - x^2y^4 - x^4y^4$  is  $x^2y^2$ .

Also, we can write 
$$x^4y^2 = x^2y^2 \times x^2$$
,  $x^2y^4 = x^2y^2 \times y^2$  and  $x^4y^4 = x^2y^2 \times x^2y^2$ .  

$$\therefore x^4y^2 - x^2y^4 - x^4y^4 = x^2y^2 \times x^2 - x^2y^2 \times y^2 - x^2y^2 \times x^2y^2$$

$$= x^2y^2(x^2 - y^2 - x^2y^2)$$

### Factorizations Ex 7.2 Q13

### Answer

The greatest common factor of the terms  $9x^2y$  and 3axy of the expression  $9x^2y + 3axy$  is 3xy.

Also, we can write  $9x^2y = 3xy \times 3x$  and  $3axy = 3xy \times a$ .

$$\therefore 9x^2y + 3axy = 3xy \times 3x + 3xy \times a$$
$$= 3xy(3x + a)$$

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