

EXERCISE 11F

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Enclose the given terms in brackets as required:

1. $x - y - z = z - (\dots\dots\dots)$
2. $x^2 - xy^2 - 2xy - y^2 = x^2 - (\dots\dots\dots)$
3. $4a - 9 + 2b - 6 = 4a - (\dots\dots\dots)$
4. $x^2 - y^2 + z^2 + 3x - 2y = x^2 - (\dots\dots\dots)$
5. $-2a^2 + 4ab - 6a^2b^2 + 8ab^2 = -2a (\dots\dots\dots)$

Solution:

1. $x - y - z = z - (y + z)$
2. $x^2 - xy^2 - 2xy - y^2 = x^2 - (xy^2 + 2xy + y^2)$
3. $4a - 9 + 2b - 6 = 4a - (9 - 2b + 6)$
4. $x^2 - y^2 + z^2 + 3x - 2y = x^2 - (y^2 - z^2 - 3x + 2y)$
5. $-2a^2 + 4ab - 6a^2b^2 + 8ab^2 = -2a (a - 2b + 3ab^2 - 4b^2)$

Simplify:

6. $2x - (x + 2y - z)$

Solution:

$$\begin{aligned} &2x - (x + 2y - z) \\ &\text{We can write it as} \\ &= 2x - x - 2y + z \\ &\text{So we get} \\ &= x - 2y + z \end{aligned}$$

7. $p + q - (p - q) + (2p - 3q)$

Solution:

$$\begin{aligned} &p + q - (p - q) + (2p - 3q) \\ &\text{We can write it as} \\ &= p + q - p + q + 2p - 3q \\ &\text{So we get} \\ &= 2p - q \end{aligned}$$

8. $9x - (-4x + 5)$

Solution:

$$\begin{aligned} &9x - (-4x + 5) \\ &\text{We can write it as} \\ &= 9x + 4x - 5 \\ &\text{So we get} \\ &= 13x - 5 \end{aligned}$$

9. $6a - (-5a - 8b) + (3a + b)$

Solution:

$$6a - (-5a - 8b) + (3a + b)$$

We can write it as

$$= 6a + 5a + 8b + 3a + b$$

So we get

$$= 6a + 5a + 3a + 8b + b$$

$$= 14a + 9b$$

10. $(p - 2q) - (3q - r)$

Solution:

$$(p - 2q) - (3q - r)$$

We can write it as

$$= p - 2q - 3q + r$$

So we get

$$= p - 5q + r$$

11. 9a (2b - 3a + 7c)

Solution:

$$9a (2b - 3a + 7c)$$

We can write it as

$$= 18ab - 27a^2 + 63ca$$

12. $-5m (-2m + 3n - 7p)$

Solution:

$$-5m (-2m + 3n - 7p)$$

We can write it as

$$= 10m^2 - 15mn + 35mp$$

13. $-2x (x + y) + x^2$

Solution:

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

We can write it as

$$= -2x^2 - 2xy + x^2$$

So we get

$$= -x^2 - 2xy$$

14. $b (2b - 1/b) - 2b (b - 1/b)$

Solution:

$$b (2b - 1/b) - 2b (b - 1/b)$$

We can write it as

$$= 2b^2 - 1 - 2b^2 + 2$$

So we get

$$= 1$$

15. $8 (2a + 3b - c) - 10 (a + 2b + 3c)$

Solution:

$$8(2a + 3b - c) - 10(a + 2b + 3c)$$

We can write it as

$$= 16a + 24b - 8c - 10a - 20b - 30c$$

So we get

$$= 6a + 4b - 38c$$

