

## Simplifying Expressions (E)

Simplify each expression.

1.  $av + v - av - 1 + 3v + 4$

6.  $bz + 2b + 1 + 4b - z^2 + b^2$

2.  $b - bx + b^2 - bx - 3bx - b$

7.  $z^2 + c + 4c + c + 1 + 6$

3.  $au + 1 - 3u - u^2 - 6a + 6au$

8.  $2ac + 1 + ac + 5a + a - 2c^2$

4.  $b + x^2 + b^2 - 1 - bx + 2b$

9.  $-3x^2 + xz - 1 + x^2 - 1 + 1$

5.  $z^2 - 5 + 5x + 5 + x^2 + 4x^2$

10.  $1 + x^2 + 1 - x - 1 + 1$

## Simplifying Expressions (E) Answers

Simplify each expression.

$$1. av + v - av - 1 + 3v + 4 \\ = 4v + 3$$

$$6. bz + 2b + 1 + 4b - z^2 + b^2 \\ = bz - z^2 + b^2 + 6b + 1$$

$$2. b - bx + b^2 - bx - 3bx - b \\ = -5bx + b^2$$

$$7. z^2 + c + 4c + c + 1 + 6 \\ = z^2 + 6c + 7$$

$$3. au + 1 - 3u - u^2 - 6a + 6au \\ = 7au - u^2 - 3u - 6a + 1$$

$$8. 2ac + 1 + ac + 5a + a - 2c^2 \\ = 3ac - 2c^2 + 6a + 1$$

$$4. b + x^2 + b^2 - 1 - bx + 2b \\ = x^2 + b^2 - bx + 3b - 1$$

$$9. -3x^2 + xz - 1 + x^2 - 1 + 1 \\ = -2x^2 + xz - 1$$

$$5. z^2 - 5 + 5x + 5 + x^2 + 4x^2 \\ = z^2 + 5x^2 + 5x$$

$$10. 1 + x^2 + 1 - x - 1 + 1 \\ = x^2 - x + 2$$