

Simplifying Expressions (E)

Simplify each expression.

1. $z + 3 + z^2 + 3z^2 + 4z^2$

6. $2 + uy + 4y + 1 + u$

2. $5 + av + 1 + av + a$

7. $5a - 3 - 5a^2 + 3a^2 - 1$

3. $b - x^2 + 1 + 1 + 2b^2$

8. $-3b + 2 - 6z + 1 - b$

4. $2z^2 + 6v + 5v + z - v$

9. $3cy + c + 6c^2 + 4c - 6y^2$

5. $5a + 2 + a - 1 + 5a^2$

10. $u + v - 1 + 6uv - 2v$

Simplifying Expressions (E) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & z + 3 + z^2 + 3z^2 + 4z^2 \\ & = 8z^2 + z + 3 \end{aligned}$$

$$\begin{aligned} 6. \quad & 2 + uy + 4y + 1 + u \\ & = uy + 4y + u + 3 \end{aligned}$$

$$\begin{aligned} 2. \quad & 5 + av + 1 + av + a \\ & = 2av + a + 6 \end{aligned}$$

$$\begin{aligned} 7. \quad & 5a - 3 - 5a^2 + 3a^2 - 1 \\ & = -2a^2 + 5a - 4 \end{aligned}$$

$$\begin{aligned} 3. \quad & b - x^2 + 1 + 1 + 2b^2 \\ & = -x^2 + 2b^2 + b + 2 \end{aligned}$$

$$\begin{aligned} 8. \quad & -3b + 2 - 6z + 1 - b \\ & = -4b - 6z + 3 \end{aligned}$$

$$\begin{aligned} 4. \quad & 2z^2 + 6v + 5v + z - v \\ & = 2z^2 + 10v + z \end{aligned}$$

$$\begin{aligned} 9. \quad & 3cy + c + 6c^2 + 4c - 6y^2 \\ & = 3cy + 6c^2 - 6y^2 + 5c \end{aligned}$$

$$\begin{aligned} 5. \quad & 5a + 2 + a - 1 + 5a^2 \\ & = 5a^2 + 6a + 1 \end{aligned}$$

$$\begin{aligned} 10. \quad & u + v - 1 + 6uv - 2v \\ & = 6uv + u - v - 1 \end{aligned}$$