

Simplifying Expressions (J)

Simplify each expression.

1. $a^2 + ac + c + a + c + 1$

6. $y + y^2 + xy + x - 6 + 6y$

2. $x + u + u + 1 - ux - u$

7. $-y^2 + 6 + a - y^2 + y + ay$

3. $5u^2 + 2b^2 + u + u + bu - 5b$

8. $y^2 + y^2 + 4y + 3 + 4u + 1$

4. $a - 5au - 1 - 1 - a - 2au$

9. $3b - bv + v^2 - v + 5b^2 + 5b^2$

5. $1 + c^2 - 6cy + 1 + 6 - 4c$

10. $2a + 4a - a^2 + a^2 + 4 - 1$

Simplifying Expressions (J) Answers

Simplify each expression.

$$\begin{aligned} 1. & a^2 + ac + c + a + c + 1 \\ & = a^2 + ac + 2c + a + 1 \end{aligned}$$

$$\begin{aligned} 6. & y + y^2 + xy + x - 6 + 6y \\ & = y^2 + xy + 7y + x - 6 \end{aligned}$$

$$\begin{aligned} 2. & x + u + u + 1 - ux - u \\ & = -ux + x + u + 1 \end{aligned}$$

$$\begin{aligned} 7. & -y^2 + 6 + a - y^2 + y + ay \\ & = -2y^2 + ay + a + y + 6 \end{aligned}$$

$$\begin{aligned} 3. & 5u^2 + 2b^2 + u + u + bu - 5b \\ & = 5u^2 + 2b^2 + bu + 2u - 5b \end{aligned}$$

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

$$\begin{aligned} 4. & a - 5au - 1 - 1 - a - 2au \\ & = -7au - 2 \end{aligned}$$

$$\begin{aligned} 9. & 3b - bv + v^2 - v + 5b^2 + 5b^2 \\ & = -bv + v^2 + 10b^2 + 3b - v \end{aligned}$$

$$\begin{aligned} 5. & 1 + c^2 - 6cy + 1 + 6 - 4c \\ & = c^2 - 6cy - 4c + 8 \end{aligned}$$

$$\begin{aligned} 10. & 2a + 4a - a^2 + a^2 + 4 - 1 \\ & = 6a + 3 \end{aligned}$$