

## Simplifying Expressions (A)

Simplify each expression.

1.  $6b^2 - 1 - c - 1$

6.  $1 + uy - 1 + 1$

2.  $1 - bx - 1 - bx$

7.  $3c - cz + 1 + 1$

3.  $u - 2bu + 1 + bu$

8.  $x^2 + x + 1 - 6$

4.  $2 + 1 + x - 1$

9.  $1 - 6x + 5 + 1$

5.  $1 + av + 3 - 3a$

10.  $v^2 + 1 - v^2 - 6v$

## Simplifying Expressions (A) Answers

Simplify each expression.

$$\begin{aligned} 1. & 6b^2 - 1 - c - 1 \\ & = 6b^2 - c - 2 \end{aligned}$$

$$\begin{aligned} 6. & 1 + uy - 1 + 1 \\ & = uy + 1 \end{aligned}$$

$$\begin{aligned} 2. & 1 - bx - 1 - bx \\ & = -2bx \end{aligned}$$

$$\begin{aligned} 7. & 3c - cz + 1 + 1 \\ & = -cz + 3c + 2 \end{aligned}$$

$$\begin{aligned} 3. & u - 2bu + 1 + bu \\ & = -bu + u + 1 \end{aligned}$$

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

$$\begin{aligned} 4. & 2 + 1 + x - 1 \\ & = x + 2 \end{aligned}$$

$$\begin{aligned} 9. & 1 - 6x + 5 + 1 \\ & = -6x + 7 \end{aligned}$$

$$\begin{aligned} 5. & 1 + av + 3 - 3a \\ & = av - 3a + 4 \end{aligned}$$

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

## Simplifying Expressions (B)

Simplify each expression.

1.  $5 - 4 + 2a + a^2$

6.  $6 + 1 - 1 + b$

2.  $1 + y - 3 - cy$

7.  $2u + uy + uy + u$

3.  $-1 - 3av + 6v^2 - 4v^2$

8.  $-5z - 1 + cz + 6$

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

9.  $-2 + 2x - 1 + 1$

5.  $6 + 3b^2 - b + 5$

10.  $1 + c^2 - b^2 + 3$

## Simplifying Expressions (B) Answers

Simplify each expression.

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

$$\begin{aligned} 6. \quad & 6 + 1 - 1 + b \\ & = b + 6 \end{aligned}$$

$$\begin{aligned} 2. \quad & 1 + y - 3 - cy \\ & = -cy + y - 2 \end{aligned}$$

$$\begin{aligned} 7. \quad & 2u + uy + uy + u \\ & = 2uy + 3u \end{aligned}$$

$$\begin{aligned} 3. \quad & -1 - 3av + 6v^2 - 4v^2 \\ & = -3av + 2v^2 - 1 \end{aligned}$$

$$\begin{aligned} 8. \quad & -5z - 1 + cz + 6 \\ & = cz - 5z + 5 \end{aligned}$$

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

$$\begin{aligned} 9. \quad & -2 + 2x - 1 + 1 \\ & = 2x - 2 \end{aligned}$$

$$\begin{aligned} 5. \quad & 6 + 3b^2 - b + 5 \\ & = 3b^2 - b + 11 \end{aligned}$$

$$\begin{aligned} 10. \quad & 1 + c^2 - b^2 + 3 \\ & = c^2 - b^2 + 4 \end{aligned}$$

## Simplifying Expressions (C)

Simplify each expression.

1.  $2 - 1 - 6 - 3a$

6.  $vz + 4vz + vz + vz$

2.  $4 + 5u^2 + 5 - u^2$

7.  $1 + 2v^2 + 1 + v^2$

3.  $3 - 2c^2 + a + 5$

8.  $5 + 2 + 6bv + 3bv$

4.  $1 - 2uz - z + 1$

9.  $1 - 5c^2 + 1 - c$

5.  $4bz - 6bz - b - z$

10.  $y^2 - 3y + y + 1$

## Simplifying Expressions (C) Answers

Simplify each expression.

$$\begin{aligned} 1. & 2 - 1 - 6 - 3a \\ & = -3a - 5 \end{aligned}$$

$$\begin{aligned} 6. & vz + 4vz + vz + vz \\ & = 7vz \end{aligned}$$

$$\begin{aligned} 2. & 4 + 5u^2 + 5 - u^2 \\ & = 4u^2 + 9 \end{aligned}$$

$$\begin{aligned} 7. & 1 + 2v^2 + 1 + v^2 \\ & = 3v^2 + 2 \end{aligned}$$

$$\begin{aligned} 3. & 3 - 2c^2 + a + 5 \\ & = -2c^2 + a + 8 \end{aligned}$$

$$\begin{aligned} 8. & 5 + 2 + 6bv + 3bv \\ & = 9bv + 7 \end{aligned}$$

$$\begin{aligned} 4. & 1 - 2uz - z + 1 \\ & = -2uz - z + 2 \end{aligned}$$

$$\begin{aligned} 9. & 1 - 5c^2 + 1 - c \\ & = -5c^2 - c + 2 \end{aligned}$$

$$\begin{aligned} 5. & 4bz - 6bz - b - z \\ & = -2bz - b - z \end{aligned}$$

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

## Simplifying Expressions (D)

Simplify each expression.

1.  $-z + x - 6z + 4x^2$

6.  $-1 + z - 3z + 1$

2.  $-5b + 6bz + 1 + 4$

7.  $2 + 1 + 2y + 2a^2$

3.  $u - u^2 + 1 - 5$

8.  $-4 + 2z + 1 + z$

4.  $4 - 5a + 1 - a$

9.  $x - x^2 + x^2 + x^2$

5.  $-2 - c^2 + c + 3c$

10.  $4cv + 3 + c - 6c$

## Simplifying Expressions (D) Answers

Simplify each expression.

$$\begin{aligned} 1. & -z + x - 6z + 4x^2 \\ & = 4x^2 - 7z + x \end{aligned}$$

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

$$\begin{aligned} 2. & -5b + 6bz + 1 + 4 \\ & = 6bz - 5b + 5 \end{aligned}$$

$$\begin{aligned} 7. & 2 + 1 + 2y + 2a^2 \\ & = 2a^2 + 2y + 3 \end{aligned}$$

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

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

$$\begin{aligned} 4. & 4 - 5a + 1 - a \\ & = -6a + 5 \end{aligned}$$

$$\begin{aligned} 9. & x - x^2 + x^2 + x^2 \\ & = x^2 + x \end{aligned}$$

$$\begin{aligned} 5. & -2 - c^2 + c + 3c \\ & = -c^2 + 4c - 2 \end{aligned}$$

$$\begin{aligned} 10. & 4cv + 3 + c - 6c \\ & = 4cv - 5c + 3 \end{aligned}$$



## Simplifying Expressions (E)

Simplify each expression.

1.  $3 + 5 + cx + cx$

6.  $1 + v - 3 + 6v^2$

2.  $4cz - 6 - cz - 6$

7.  $1 - 5bx + 2b^2 + bx$

3.  $-3z^2 + 5z + 1 - 1$

8.  $ac + a + c + 5a$

4.  $v^2 + 5 + 4 + v^2$

9.  $1 + z - z + 2z$

5.  $4y + 2y + 1 + y$

10.  $5 + xy - 5xy - 5x$

## Simplifying Expressions (E) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & 3 + 5 + cx + cx \\ & = 2cx + 8 \end{aligned}$$

$$\begin{aligned} 6. \quad & 1 + v - 3 + 6v^2 \\ & = 6v^2 + v - 2 \end{aligned}$$

$$\begin{aligned} 2. \quad & 4cz - 6 - cz - 6 \\ & = 3cz - 12 \end{aligned}$$

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

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

$$\begin{aligned} 8. \quad & ac + a + c + 5a \\ & = ac + 6a + c \end{aligned}$$

$$\begin{aligned} 4. \quad & v^2 + 5 + 4 + v^2 \\ & = 2v^2 + 9 \end{aligned}$$

$$\begin{aligned} 9. \quad & 1 + z - z + 2z \\ & = 2z + 1 \end{aligned}$$

$$\begin{aligned} 5. \quad & 4y + 2y + 1 + y \\ & = 7y + 1 \end{aligned}$$

$$\begin{aligned} 10. \quad & 5 + xy - 5xy - 5x \\ & = -4xy - 5x + 5 \end{aligned}$$

## Simplifying Expressions (F)

Simplify each expression.

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

6.  $1 + 2z^2 + 5z^2 + 5z$

2.  $1 + 4y^2 + 1 + 6$

7.  $-1 - 4ay - 6y - 4$

3.  $-u + 4 + 5 - bu$

8.  $1 + 4c + 1 - 2$

4.  $-3u + 4c + 4u + 1$

9.  $1 + u^2 - u + u$

5.  $ux + x^2 + 4ux - u^2$

10.  $v - 5 + vx + v$

## Simplifying Expressions (F) Answers

Simplify each expression.

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

$$\begin{aligned} 6. & 1 + 2z^2 + 5z^2 + 5z \\ & = 7z^2 + 5z + 1 \end{aligned}$$

$$\begin{aligned} 2. & 1 + 4y^2 + 1 + 6 \\ & = 4y^2 + 8 \end{aligned}$$

$$\begin{aligned} 7. & -1 - 4ay - 6y - 4 \\ & = -4ay - 6y - 5 \end{aligned}$$

$$\begin{aligned} 3. & -u + 4 + 5 - bu \\ & = -bu - u + 9 \end{aligned}$$

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

$$\begin{aligned} 4. & -3u + 4c + 4u + 1 \\ & = u + 4c + 1 \end{aligned}$$

$$\begin{aligned} 9. & 1 + u^2 - u + u \\ & = u^2 + 1 \end{aligned}$$

$$\begin{aligned} 5. & ux + x^2 + 4ux - u^2 \\ & = 5ux + x^2 - u^2 \end{aligned}$$

$$\begin{aligned} 10. & v - 5 + vx + v \\ & = vx + 2v - 5 \end{aligned}$$

## Simplifying Expressions (G)

Simplify each expression.

1.  $a^2 + 3v - 1 + 1$

6.  $2 - 1 + 1 + u$

2.  $1 + 5a + 2ab - 6ab$

7.  $2 - 6ux + x + 3x$

3.  $b^2 + b + 4 - 1$

8.  $1 + cv - 3v + 6$

4.  $2y - y + 4y + y^2$

9.  $-1 + 2u^2 + 4u + 2u$

5.  $ab + 1 + 6 - b^2$

10.  $2bc + 6c + 1 + 6$

## Simplifying Expressions (G) Answers

Simplify each expression.

$$1. \begin{aligned} a^2 + 3v - 1 + 1 \\ = a^2 + 3v \end{aligned}$$

$$6. \begin{aligned} 2 - 1 + 1 + u \\ = u + 2 \end{aligned}$$

$$2. \begin{aligned} 1 + 5a + 2ab - 6ab \\ = -4ab + 5a + 1 \end{aligned}$$

$$7. \begin{aligned} 2 - 6ux + x + 3x \\ = -6ux + 4x + 2 \end{aligned}$$

$$3. \begin{aligned} b^2 + b + 4 - 1 \\ = b^2 + b + 3 \end{aligned}$$

$$8. \begin{aligned} 1 + cv - 3v + 6 \\ = cv - 3v + 7 \end{aligned}$$

$$4. \begin{aligned} 2y - y + 4y + y^2 \\ = y^2 + 5y \end{aligned}$$

$$9. \begin{aligned} -1 + 2u^2 + 4u + 2u \\ = 2u^2 + 6u - 1 \end{aligned}$$

$$5. \begin{aligned} ab + 1 + 6 - b^2 \\ = ab - b^2 + 7 \end{aligned}$$

$$10. \begin{aligned} 2bc + 6c + 1 + 6 \\ = 2bc + 6c + 7 \end{aligned}$$

## Simplifying Expressions (H)

Simplify each expression.

1.  $b - b - b^2 + v^2$

6.  $1 + 3x^2 + 6x + 1$

2.  $z + z + 3 + 4z$

7.  $2a - b - b + 5b$

3.  $-3 - 1 + u - 6$

8.  $-xz - xz - 2 - z$

4.  $2u + 5u + cu - 1$

9.  $u^2 + b - 2bu + b$

5.  $6z + 1 + 1 + 5$

10.  $-3b + 3b + 1 + bv$

## Simplifying Expressions (H) Answers

Simplify each expression.

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

$$\begin{aligned} 6. & 1 + 3x^2 + 6x + 1 \\ & = 3x^2 + 6x + 2 \end{aligned}$$

$$\begin{aligned} 2. & z + z + 3 + 4z \\ & = 6z + 3 \end{aligned}$$

$$\begin{aligned} 7. & 2a - b - b + 5b \\ & = 2a + 3b \end{aligned}$$

$$\begin{aligned} 3. & -3 - 1 + u - 6 \\ & = u - 10 \end{aligned}$$

$$\begin{aligned} 8. & -xz - xz - 2 - z \\ & = -2xz - z - 2 \end{aligned}$$

$$\begin{aligned} 4. & 2u + 5u + cu - 1 \\ & = cu + 7u - 1 \end{aligned}$$

$$\begin{aligned} 9. & u^2 + b - 2bu + b \\ & = u^2 - 2bu + 2b \end{aligned}$$

$$\begin{aligned} 5. & 6z + 1 + 1 + 5 \\ & = 6z + 7 \end{aligned}$$

$$\begin{aligned} 10. & -3b + 3b + 1 + bv \\ & = bv + 1 \end{aligned}$$



## Simplifying Expressions (I)

Simplify each expression.

1.  $-5 + ux - 5u + 2$

6.  $4v^2 - 1 + 1 + v$

2.  $6y^2 + y^2 + cy + 5$

7.  $-2z - 1 + 2z + z^2$

3.  $3cv + 3c^2 + 1 - 1$

8.  $6 - 2 + uz + 3$

4.  $5u + 4 - 3u + 1$

9.  $6z^2 + 1 - z^2 + z$

5.  $z + 1 + 4z^2 - 1$

10.  $-4z - 6z - 1 + 4b$

## Simplifying Expressions (I) Answers

Simplify each expression.

$$\begin{aligned} 1. & -5 + ux - 5u + 2 \\ & = ux - 5u - 3 \end{aligned}$$

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

$$\begin{aligned} 2. & 6y^2 + y^2 + cy + 5 \\ & = 7y^2 + cy + 5 \end{aligned}$$

$$\begin{aligned} 7. & -2z - 1 + 2z + z^2 \\ & = z^2 - 1 \end{aligned}$$

$$\begin{aligned} 3. & 3cv + 3c^2 + 1 - 1 \\ & = 3cv + 3c^2 \end{aligned}$$

$$\begin{aligned} 8. & 6 - 2 + uz + 3 \\ & = uz + 7 \end{aligned}$$

$$\begin{aligned} 4. & 5u + 4 - 3u + 1 \\ & = 2u + 5 \end{aligned}$$

$$\begin{aligned} 9. & 6z^2 + 1 - z^2 + z \\ & = 5z^2 + z + 1 \end{aligned}$$

$$\begin{aligned} 5. & z + 1 + 4z^2 - 1 \\ & = 4z^2 + z \end{aligned}$$

$$\begin{aligned} 10. & -4z - 6z - 1 + 4b \\ & = -10z + 4b - 1 \end{aligned}$$

## Simplifying Expressions (J)

Simplify each expression.

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

6.  $4 + 4 - c + c^2$

2.  $z + 1 + 1 + uz$

7.  $v - v - v + 1$

3.  $y + y^2 - y + 1$

8.  $y^2 - 1 - y + 1$

4.  $-5 - 1 - 4a^2 + 2a^2$

9.  $-1 - v - a - 2$

5.  $-4 - vy + y^2 + 1$

10.  $-1 + 1 + cz - 6$

## Simplifying Expressions (J) Answers

Simplify each expression.

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

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

$$\begin{aligned} 2. \quad & z + 1 + 1 + uz \\ & = uz + z + 2 \end{aligned}$$

$$\begin{aligned} 7. \quad & v - v - v + 1 \\ & = -v + 1 \end{aligned}$$

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

$$\begin{aligned} 8. \quad & y^2 - 1 - y + 1 \\ & = y^2 - y \end{aligned}$$

$$\begin{aligned} 4. \quad & -5 - 1 - 4a^2 + 2a^2 \\ & = -2a^2 - 6 \end{aligned}$$

$$\begin{aligned} 9. \quad & -1 - v - a - 2 \\ & = -v - a - 3 \end{aligned}$$

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

$$\begin{aligned} 10. \quad & -1 + 1 + cz - 6 \\ & = cz - 6 \end{aligned}$$