

## Simplifying Expressions (A)

Simplify each expression.

1.  $z - 1 + 4$

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

2.  $c^2 + c + c$

7.  $a^2 - 1 + 4$

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

8.  $y - 6y^2 + y^2$

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

9.  $-3b - b^2 - 2b^2$

5.  $3z^2 + 3z^2 + 4z$

10.  $x + x - 1$

## Simplifying Expressions (A) Answers

Simplify each expression.

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

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

$$\begin{aligned} 2. c^2 + c + c \\ = c^2 + 2c \end{aligned}$$

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

$$\begin{aligned} 3. -2y^2 - y^2 + 5 \\ = -3y^2 + 5 \end{aligned}$$

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

$$\begin{aligned} 4. 6v^2 - 4v - 4v \\ = 6v^2 - 8v \end{aligned}$$

$$\begin{aligned} 9. -3b - b^2 - 2b^2 \\ = -3b^2 - 3b \end{aligned}$$

$$\begin{aligned} 5. 3z^2 + 3z^2 + 4z \\ = 6z^2 + 4z \end{aligned}$$

$$\begin{aligned} 10. x + x - 1 \\ = 2x - 1 \end{aligned}$$

## Simplifying Expressions (B)

Simplify each expression.

1.  $-6a - a^2 + a^2$

6.  $5 - v^2 + 6$

2.  $-1 - 1 + 3z$

7.  $z - z^2 + z$

3.  $y + y^2 + 5y$

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

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

9.  $u^2 + 5u + u^2$

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

10.  $2b^2 + 1 + 4b^2$

## Simplifying Expressions (B) Answers

Simplify each expression.

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

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

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

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

$$\begin{aligned} 3. & y + y^2 + 5y \\ & = y^2 + 6y \end{aligned}$$

$$\begin{aligned} 8. & 6x^2 - 2 - 1 \\ & = 6x^2 - 3 \end{aligned}$$

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

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

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

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

## Simplifying Expressions (C)

Simplify each expression.

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

6.  $u - u + 6u^2$

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

7.  $z + z^2 + z^2$

3.  $4a^2 - 5 - 1$

8.  $-2a - 2 - 1$

4.  $-b + 2 - b$

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

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

10.  $-y^2 + 6y + y^2$

## Simplifying Expressions (C) Answers

Simplify each expression.

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

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

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

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

$$\begin{aligned} 3. \quad & 4a^2 - 5 - 1 \\ & = 4a^2 - 6 \end{aligned}$$

$$\begin{aligned} 8. \quad & -2a - 2 - 1 \\ & = -2a - 3 \end{aligned}$$

$$\begin{aligned} 4. \quad & -b + 2 - b \\ & = -2b + 2 \end{aligned}$$

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

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

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

## Simplifying Expressions (D)

Simplify each expression.

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

6.  $c^2 - 6c^2 - c$

2.  $z + z + 6z^2$

7.  $v + v - 5$

3.  $-2a^2 + 6a + a$

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

4.  $-c + 1 + 5c$

9.  $3u^2 - 5u + 3u^2$

5.  $b^2 - 1 + 6$

10.  $5 - a - a$

## Simplifying Expressions (D) Answers

Simplify each expression.

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

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

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

$$\begin{aligned} 7. \quad & v + v - 5 \\ & = 2v - 5 \end{aligned}$$

$$\begin{aligned} 3. \quad & -2a^2 + 6a + a \\ & = -2a^2 + 7a \end{aligned}$$

$$\begin{aligned} 8. \quad & 1 + 2x^2 + 6 \\ & = 2x^2 + 7 \end{aligned}$$

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

$$\begin{aligned} 9. \quad & 3u^2 - 5u + 3u^2 \\ & = 6u^2 - 5u \end{aligned}$$

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

$$\begin{aligned} 10. \quad & 5 - a - a \\ & = -2a + 5 \end{aligned}$$



## Simplifying Expressions (E)

Simplify each expression.

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

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

2.  $1 - 4 - b^2$

7.  $2b - b + b$

3.  $3y + 6 + 2$

8.  $4 - 6z + z$

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

9.  $4 - 1 + y$

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

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

## Simplifying Expressions (E) Answers

Simplify each expression.

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

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

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

$$\begin{aligned} 7. \quad & 2b - b + b \\ & = 2b \end{aligned}$$

$$\begin{aligned} 3. \quad & 3y + 6 + 2 \\ & = 3y + 8 \end{aligned}$$

$$\begin{aligned} 8. \quad & 4 - 6z + z \\ & = -5z + 4 \end{aligned}$$

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

$$\begin{aligned} 9. \quad & 4 - 1 + y \\ & = y + 3 \end{aligned}$$

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

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

## Simplifying Expressions (F)

Simplify each expression.

1.  $a + 6 - 2$

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

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

7.  $5z^2 + 1 + 1$

3.  $2 + 3 - x$

8.  $x + x^2 + x^2$

4.  $-y - 3 + 1$

9.  $1 + 4 + y$

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

10.  $-1 + 5a + a$

## Simplifying Expressions (F) Answers

Simplify each expression.

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

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

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

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

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

$$\begin{aligned} 8. \quad & x + x^2 + x^2 \\ & = 2x^2 + x \end{aligned}$$

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

$$\begin{aligned} 9. \quad & 1 + 4 + y \\ & = y + 5 \end{aligned}$$

$$\begin{aligned} 5. \quad & 3z^2 - 5 + 6z^2 \\ & = 9z^2 - 5 \end{aligned}$$

$$\begin{aligned} 10. \quad & -1 + 5a + a \\ & = 6a - 1 \end{aligned}$$

## Simplifying Expressions (G)

Simplify each expression.

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

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

2.  $-c + 6c - c$

7.  $2 - 5x + 3x$

3.  $1 + y + 1$

8.  $-a^2 - 4a^2 + a^2$

4.  $-1 + a - 1$

9.  $1 + 6c + 2c$

5.  $-2y + 1 - 1$

10.  $b + 1 - 5b$

## Simplifying Expressions (G) Answers

Simplify each expression.

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

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

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

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

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

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

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

$$\begin{aligned} 9. & 1 + 6c + 2c \\ & = 8c + 1 \end{aligned}$$

$$\begin{aligned} 5. & -2y + 1 - 1 \\ & = -2y \end{aligned}$$

$$\begin{aligned} 10. & b + 1 - 5b \\ & = -4b + 1 \end{aligned}$$

## Simplifying Expressions (H)

Simplify each expression.

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

6.  $-a + a + 4a$

2.  $c - c - 4c^2$

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

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

8.  $z^2 + 2z^2 + 4z$

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

9.  $1 + b^2 + 6$

5.  $y + 5y^2 + y^2$

10.  $5u + 2 + 2u$

## Simplifying Expressions (H) Answers

Simplify each expression.

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

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

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

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

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

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

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

$$\begin{aligned} 9. \quad & 1 + b^2 + 6 \\ & = b^2 + 7 \end{aligned}$$

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

$$\begin{aligned} 10. \quad & 5u + 2 + 2u \\ & = 7u + 2 \end{aligned}$$



## Simplifying Expressions (I)

Simplify each expression.

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

6.  $z^2 + z^2 + 3z$

2.  $z^2 + z + z$

7.  $-4c^2 + c^2 - c^2$

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

8.  $y + y - 1$

4.  $z^2 + 6z + 3z$

9.  $4b + 1 + b$

5.  $b^2 + b + b^2$

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

## Simplifying Expressions (I) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & 6v^2 + v^2 + 3 \\ & = 7v^2 + 3 \end{aligned}$$

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

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

$$\begin{aligned} 7. \quad & -4c^2 + c^2 - c^2 \\ & = -4c^2 \end{aligned}$$

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

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

$$\begin{aligned} 4. \quad & z^2 + 6z + 3z \\ & = z^2 + 9z \end{aligned}$$

$$\begin{aligned} 9. \quad & 4b + 1 + b \\ & = 5b + 1 \end{aligned}$$

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

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

## Simplifying Expressions (J)

Simplify each expression.

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

6.  $2 + b^2 + 6$

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

7.  $a - 5a + 6a^2$

3.  $-a + 3 - 3$

8.  $y^2 + 1 + 2$

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

9.  $-v - 2v^2 - v^2$

5.  $-6a - a + a^2$

10.  $-u^2 - u^2 + u^2$

## Simplifying Expressions (J) Answers

Simplify each expression.

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

$$6. \begin{aligned} 2 + b^2 + 6 \\ = b^2 + 8 \end{aligned}$$

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

$$7. \begin{aligned} a - 5a + 6a^2 \\ = 6a^2 - 4a \end{aligned}$$

$$3. \begin{aligned} -a + 3 - 3 \\ = -a \end{aligned}$$

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

$$4. \begin{aligned} 6y^2 + 2y^2 + y^2 \\ = 9y^2 \end{aligned}$$

$$9. \begin{aligned} -v - 2v^2 - v^2 \\ = -3v^2 - v \end{aligned}$$

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

$$10. \begin{aligned} -u^2 - u^2 + u^2 \\ = -u^2 \end{aligned}$$