

Simplification d'Expressions (A)

Simplifiez chaque expression.

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

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

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

7. $8v - 9v^2 + 8v + v^2 + 5v^2$

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

8. $1 - b + 1 - 1 + bu$

4. $-3au + a + 9 - 5u^2 - u^2$

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

5. $-x + 6 + 1 - vx - 10$

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

Simplification d'Expressions (A) Solutions

Simplifiez chaque expression.

$$\begin{aligned} 1. & -1 + 8z + 8z + 1 + z^2 \\ & = z^2 + 16z \end{aligned}$$

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

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

$$\begin{aligned} 7. & 8v - 9v^2 + 8v + v^2 + 5v^2 \\ & = -3v^2 + 16v \end{aligned}$$

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

$$\begin{aligned} 8. & 1 - b + 1 - 1 + bu \\ & = bu - b + 1 \end{aligned}$$

$$\begin{aligned} 4. & -3au + a + 9 - 5u^2 - u^2 \\ & = -3au - 6u^2 + a + 9 \end{aligned}$$

$$\begin{aligned} 9. & 1 - bc + c - 5 + 9b^2 \\ & = -bc + 9b^2 + c - 4 \end{aligned}$$

$$\begin{aligned} 5. & -x + 6 + 1 - vx - 10 \\ & = -vx - x - 3 \end{aligned}$$

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

Simplification d'Expressions (B)

Simplifiez chaque expression.

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

6. $1 + a^2 + 10a^2 - z + z$

2. $8 - 1 - y + y^2 + 7$

7. $-1 - 5u^2 + 1 + 10b + 2b^2$

3. $-9z + 2z - 1 + z + 3z$

8. $1 + cx + c + x + 2$

4. $1 + 3 + xy - 7 - 4x^2$

9. $-1 - 1 - 6c + 1 + 7c$

5. $x^2 + x + 9x^2 + x + x^2$

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

Simplification d'Expressions (B) Solutions

Simplifiez chaque expression.

$$\begin{aligned} 1. \quad & c^2 + c + 10 - 1 + 2 \\ & = c^2 + c + 11 \end{aligned}$$

$$\begin{aligned} 6. \quad & 1 + a^2 + 10a^2 - z + z \\ & = 11a^2 + 1 \end{aligned}$$

$$\begin{aligned} 2. \quad & 8 - 1 - y + y^2 + 7 \\ & = y^2 - y + 14 \end{aligned}$$

$$\begin{aligned} 7. \quad & -1 - 5u^2 + 1 + 10b + 2b^2 \\ & = -5u^2 + 2b^2 + 10b \end{aligned}$$

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

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

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

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

$$\begin{aligned} 5. \quad & x^2 + x + 9x^2 + x + x^2 \\ & = 11x^2 + 2x \end{aligned}$$

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

Simplification d'Expressions (C)

Simplifiez chaque expression.

1. $1 + 8x + 5 - x^2 + x$

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

2. $-9vz + 6z + 6 + v - 8$

7. $cu + 8 + 1 - u - 1$

3. $-10az - a + az - a^2 + 8z^2$

8. $5 + 4z + 1 + a - 7z$

4. $5z + z + 9uz - 5uz + z$

9. $6 + 1 + 10x^2 - 1 + 3x^2$

5. $b^2 - b - 4bc + b^2 + 10c$

10. $9b - b - 7 - 4z^2 + 1$

Simplification d'Expressions (C) Solutions

Simplifiez chaque expression.

$$\begin{aligned} 1. \quad & 1 + 8x + 5 - x^2 + x \\ & = -x^2 + 9x + 6 \end{aligned}$$

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

$$\begin{aligned} 2. \quad & -9vz + 6z + 6 + v - 8 \\ & = -9vz + 6z + v - 2 \end{aligned}$$

$$\begin{aligned} 7. \quad & cu + 8 + 1 - u - 1 \\ & = cu - u + 8 \end{aligned}$$

$$\begin{aligned} 3. \quad & -10az - a + az - a^2 + 8z^2 \\ & = -9az - a^2 + 8z^2 - a \end{aligned}$$

$$\begin{aligned} 8. \quad & 5 + 4z + 1 + a - 7z \\ & = -3z + a + 6 \end{aligned}$$

$$\begin{aligned} 4. \quad & 5z + z + 9uz - 5uz + z \\ & = 4uz + 7z \end{aligned}$$

$$\begin{aligned} 9. \quad & 6 + 1 + 10x^2 - 1 + 3x^2 \\ & = 13x^2 + 6 \end{aligned}$$

$$\begin{aligned} 5. \quad & b^2 - b - 4bc + b^2 + 10c \\ & = 2b^2 - 4bc - b + 10c \end{aligned}$$

$$\begin{aligned} 10. \quad & 9b - b - 7 - 4z^2 + 1 \\ & = -4z^2 + 8b - 6 \end{aligned}$$

Simplification d'Expressions (D)

Simplifiez chaque expression.

1. $1 + 6yz + 2yz - 10z + 9z^2$

6. $-9cu - 10cu - 2c - cu - 1$

2. $ab + 6a^2 - b^2 + b + a^2$

7. $-4 + 4 + 10z + 6z - 2y^2$

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

8. $10 - 1 + 2bx - bx - 9$

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

9. $-8x^2 - 7 + 1 + 6u^2 + x$

5. $3 + 5 + 8a - 3az + 1$

10. $c^2 - c + c + 3z + c$

Simplification d'Expressions (D) Solutions

Simplifiez chaque expression.

$$\begin{aligned} 1. \quad & 1 + 6yz + 2yz - 10z + 9z^2 \\ & = 8yz + 9z^2 - 10z + 1 \end{aligned}$$

$$\begin{aligned} 6. \quad & -9cu - 10cu - 2c - cu - 1 \\ & = -20cu - 2c - 1 \end{aligned}$$

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

$$\begin{aligned} 7. \quad & -4 + 4 + 10z + 6z - 2y^2 \\ & = -2y^2 + 16z \end{aligned}$$

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

$$\begin{aligned} 8. \quad & 10 - 1 + 2bx - bx - 9 \\ & = bx \end{aligned}$$

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

$$\begin{aligned} 9. \quad & -8x^2 - 7 + 1 + 6u^2 + x \\ & = -8x^2 + 6u^2 + x - 6 \end{aligned}$$

$$\begin{aligned} 5. \quad & 3 + 5 + 8a - 3az + 1 \\ & = -3az + 8a + 9 \end{aligned}$$

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

Simplification d'Expressions (E)

Simplifiez chaque expression.

1. $4u + 2 - 6uv - 1 + u$

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

2. $-z + z^2 + 9z - 10 + z^2$

7. $5v^2 - 1 + v - v^2 - av$

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

8. $-9 + 4c - c^2 - c^2 + c^2$

4. $5v + 1 + 8v + u^2 + 1$

9. $10c^2 + 8 - 2cu + 9cu + u$

5. $4 + 5c^2 + 3c + c + 6$

10. $1 + 4z + 10 - 9 - 10v$

Simplification d'Expressions (E) Solutions

Simplifiez chaque expression.

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

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

$$\begin{aligned} 2. \quad & -z + z^2 + 9z - 10 + z^2 \\ & = 2z^2 + 8z - 10 \end{aligned}$$

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

$$\begin{aligned} 3. \quad & 1 + 1 + 10 + u^2 - 1 \\ & = u^2 + 11 \end{aligned}$$

$$\begin{aligned} 8. \quad & -9 + 4c - c^2 - c^2 + c^2 \\ & = -c^2 + 4c - 9 \end{aligned}$$

$$\begin{aligned} 4. \quad & 5v + 1 + 8v + u^2 + 1 \\ & = u^2 + 13v + 2 \end{aligned}$$

$$\begin{aligned} 9. \quad & 10c^2 + 8 - 2cu + 9cu + u \\ & = 10c^2 + 7cu + u + 8 \end{aligned}$$

$$\begin{aligned} 5. \quad & 4 + 5c^2 + 3c + c + 6 \\ & = 5c^2 + 4c + 10 \end{aligned}$$

$$\begin{aligned} 10. \quad & 1 + 4z + 10 - 9 - 10v \\ & = 4z - 10v + 2 \end{aligned}$$

Simplification d'Expressions (F)

Simplifiez chaque expression.

1. $6u^2 + 9u^2 + 8u - 2u + u$

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

2. $ab + a + 2 + 7b + 10$

7. $7 + 10 + 4c^2 + a + 1$

3. $4 + 7 + 1 - v + 4v^2$

8. $c + 5ac - 1 - a - 4c$

4. $ux - 1 - 9 + 1 - 5$

9. $-2b + ab - 1 + 9a^2 + 3ab$

5. $6 + z + v^2 + 8 - z$

10. $10cv + 1 + c + c + 3v^2$

Simplification d'Expressions (F) Solutions

Simplifiez chaque expression.

$$1. 6u^2 + 9u^2 + 8u - 2u + u \\ = 15u^2 + 7u$$

$$6. c + 4 + 6 + x + x^2 \\ = x^2 + c + x + 10$$

$$2. ab + a + 2 + 7b + 10 \\ = ab + a + 7b + 12$$

$$7. 7 + 10 + 4c^2 + a + 1 \\ = 4c^2 + a + 18$$

$$3. 4 + 7 + 1 - v + 4v^2 \\ = 4v^2 - v + 12$$

$$8. c + 5ac - 1 - a - 4c \\ = 5ac - 3c - a - 1$$

$$4. ux - 1 - 9 + 1 - 5 \\ = ux - 14$$

$$9. -2b + ab - 1 + 9a^2 + 3ab \\ = 4ab + 9a^2 - 2b - 1$$

$$5. 6 + z + v^2 + 8 - z \\ = v^2 + 14$$

$$10. 10cv + 1 + c + c + 3v^2 \\ = 10cv + 3v^2 + 2c + 1$$

Simplification d'Expressions (G)

Simplifiez chaque expression.

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

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

2. $1 + bc - b + 3b + bc$

7. $-2 + 1 - 4b^2 - 9y - 10b$

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

8. $-2v^2 - 8b^2 + v - v + 3$

4. $ux + 4x^2 + u^2 + 7ux + 5u^2$

9. $-9 - 7 + 7a + 3 + av$

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

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

Simplification d'Expressions (G) Solutions

Simplifiez chaque expression.

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

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

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

$$\begin{aligned} 7. \quad & -2 + 1 - 4b^2 - 9y - 10b \\ & = -4b^2 - 9y - 10b - 1 \end{aligned}$$

$$\begin{aligned} 3. \quad & 6z - 1 + 6u + 6u + z \\ & = 7z + 12u - 1 \end{aligned}$$

$$\begin{aligned} 8. \quad & -2v^2 - 8b^2 + v - v + 3 \\ & = -2v^2 - 8b^2 + 3 \end{aligned}$$

$$\begin{aligned} 4. \quad & ux + 4x^2 + u^2 + 7ux + 5u^2 \\ & = 8ux + 4x^2 + 6u^2 \end{aligned}$$

$$\begin{aligned} 9. \quad & -9 - 7 + 7a + 3 + av \\ & = av + 7a - 13 \end{aligned}$$

$$\begin{aligned} 5. \quad & -2 + 9 - 1 + a^2 + 1 \\ & = a^2 + 7 \end{aligned}$$

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

Simplification d'Expressions (H)

Simplifiez chaque expression.

1. $c + 10 + 3u + c + 10$

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

2. $-7x - c + c^2 - 1 - 4$

7. $b^2 + 4z + 1 - z + b$

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

8. $6 - 10 + 5 - x + 1$

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

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

5. $-1 - 9b - 2b^2 - 1 + bc$

10. $8v - 7 - vy + vy - y^2$

Simplification d'Expressions (H) Solutions

Simplifiez chaque expression.

$$\begin{aligned} 1. & c + 10 + 3u + c + 10 \\ & = 2c + 3u + 20 \end{aligned}$$

$$\begin{aligned} 6. & -6c^2 + 5 - 7c^2 + 6c + c \\ & = -13c^2 + 7c + 5 \end{aligned}$$

$$\begin{aligned} 2. & -7x - c + c^2 - 1 - 4 \\ & = c^2 - 7x - c - 5 \end{aligned}$$

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

$$\begin{aligned} 3. & -c^2 + c^2 - 1 + b - 5 \\ & = b - 6 \end{aligned}$$

$$\begin{aligned} 8. & 6 - 10 + 5 - x + 1 \\ & = -x + 2 \end{aligned}$$

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

$$\begin{aligned} 9. & 9u^2 - b^2 - 9bu + bu + 2 \\ & = 9u^2 - b^2 - 8bu + 2 \end{aligned}$$

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

$$\begin{aligned} 10. & 8v - 7 - vy + vy - y^2 \\ & = -y^2 + 8v - 7 \end{aligned}$$

Simplification d'Expressions (I)

Simplifiez chaque expression.

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

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

2. $5 + 3u + 6 - u - uz$

7. $-x + x^2 + x^2 + 7x^2 - x^2$

3. $-5y^2 - 1 - 7y + y - 9$

8. $1 - 7y^2 + 4y^2 + 1 + 7yz$

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

9. $c + 8c^2 + c^2 + c^2 - c$

5. $5 - cu + 2u + 6cu + 4c$

10. $3 - 2c + ac - ac - ac$

Simplification d'Expressions (I) Solutions

Simplifiez chaque expression.

$$\begin{aligned} 1. & -b - 1 - b^2 + 9b - z \\ & = -b^2 + 8b - z - 1 \end{aligned}$$

$$\begin{aligned} 6. & y^2 + c^2 + 1 + 5y^2 - 9y^2 \\ & = -3y^2 + c^2 + 1 \end{aligned}$$

$$\begin{aligned} 2. & 5 + 3u + 6 - u - uz \\ & = -uz + 2u + 11 \end{aligned}$$

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

$$\begin{aligned} 3. & -5y^2 - 1 - 7y + y - 9 \\ & = -5y^2 - 6y - 10 \end{aligned}$$

$$\begin{aligned} 8. & 1 - 7y^2 + 4y^2 + 1 + 7yz \\ & = -3y^2 + 7yz + 2 \end{aligned}$$

$$\begin{aligned} 4. & b + 6z - 6 - 10 + 1 \\ & = b + 6z - 15 \end{aligned}$$

$$\begin{aligned} 9. & c + 8c^2 + c^2 + c^2 - c \\ & = 10c^2 \end{aligned}$$

$$\begin{aligned} 5. & 5 - cu + 2u + 6cu + 4c \\ & = 5cu + 2u + 4c + 5 \end{aligned}$$

$$\begin{aligned} 10. & 3 - 2c + ac - ac - ac \\ & = -ac - 2c + 3 \end{aligned}$$

Simplification d'Expressions (J)

Simplifiez chaque expression.

1. $-ay - 3 + 1 - 7y + 3y$

6. $10 - 10a + 6 + 2a^2 + 2ax$

2. $9 + 1 - 2u + 4a + au$

7. $1 - 2b + 4b^2 + b - 5b^2$

3. $3y + 9by + 3y^2 + y + 5y$

8. $-2 + 1 + 1 + a^2 + au$

4. $4v^2 + 6 + 1 + 6z^2 + 9$

9. $8b^2 - y + 10b + 10b^2 + 1$

5. $-1 + 1 + 8 + 2 + uv$

10. $-7u^2 - 1 + 1 + 2 - 1$

Simplification d'Expressions (J) Solutions

Simplifiez chaque expression.

$$\begin{aligned} 1. & -ay - 3 + 1 - 7y + 3y \\ & = -ay - 4y - 2 \end{aligned}$$

$$\begin{aligned} 6. & 10 - 10a + 6 + 2a^2 + 2ax \\ & = 2a^2 + 2ax - 10a + 16 \end{aligned}$$

$$\begin{aligned} 2. & 9 + 1 - 2u + 4a + au \\ & = au - 2u + 4a + 10 \end{aligned}$$

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

$$\begin{aligned} 3. & 3y + 9by + 3y^2 + y + 5y \\ & = 9by + 3y^2 + 9y \end{aligned}$$

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

$$\begin{aligned} 4. & 4v^2 + 6 + 1 + 6z^2 + 9 \\ & = 4v^2 + 6z^2 + 16 \end{aligned}$$

$$\begin{aligned} 9. & 8b^2 - y + 10b + 10b^2 + 1 \\ & = 18b^2 - y + 10b + 1 \end{aligned}$$

$$\begin{aligned} 5. & -1 + 1 + 8 + 2 + uv \\ & = uv + 10 \end{aligned}$$

$$\begin{aligned} 10. & -7u^2 - 1 + 1 + 2 - 1 \\ & = -7u^2 + 1 \end{aligned}$$