



Simplifying Expressions

Distributive Property

$$\begin{aligned} 3(x + 2y) &= 3x + 3 \cdot 2y \\ &= 3x + 6y \end{aligned}$$

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|---------------------------|--------------------|
| 1. $-7(a + b)$ | 6. $3(2a - 8b)$ |
| 2. $x(y - 4)$ | 7. $2x(3y + -6)$ |
| 3. $-\frac{2}{3}(c - 12)$ | 8. $7(-5x + 8z)$ |
| 4. $-8(\frac{1}{2} + 6)$ | 9. $-5y(6z - 10)$ |
| 5. $y(-16 + 2x)$ | 10. $-3x(-7 + 8y)$ |

Combining Like Terms

$$\begin{aligned} 6m - 4m + 3p &= (6 - 4)m + 3p \\ &= 2m + 3p \end{aligned}$$

same variable

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|--------------------------|------------------------------------|
| 1. $9y + 6y - 2$ | 6. $4a + 7 + 3a - 8 - 3a$ |
| 2. $25x - x + 2y$ | 7. $16x + -18y + 10x - 7y$ |
| 3. $4a + 8b + 11a - 10b$ | 8. $6c - 8ab + 9c - 10$ |
| 4. $13xy + 18xy - 20xy$ | 9. $18ab + -6a + -7b + 26ab + -7b$ |
| 5. $-2m + 16 - 13m$ | 10. $5x - 3x + 2xy + 31x + -18xy$ |