

4.3 Distributive Property

PRACTICE

Simplify each expression by using the distributive property.

$$1. \quad 4(2x + 3)$$

$$8x + 12$$

$$2. \quad 5(m + 5)$$

$$5m + 25$$

$$3. \quad -4(3p - 2)$$

$$-12p + 8$$

$$4. \quad 5(2r - 3)$$

$$10r - 15$$

$$5. \quad 6(v + 1)$$

$$6v + 6$$

$$6. \quad -2(3 + x)$$

$$-6 - 2x$$

$$7. \quad -(5x + 2)$$

$$-5x - 2$$

$$8. \quad \frac{1}{2}(4b - 8)$$

$$2b - 4$$

$$9. \quad \frac{2}{3}(6 + 3x)$$

$$\frac{2}{3}\left(\frac{6}{1}\right) + \frac{2}{3}\left(\frac{3x}{1}\right)$$

$$\frac{12}{3} + \frac{6x}{3}$$

$$4 + 2x$$

Simplify each expression by using the distributive property combining like terms.

$$10. \quad 6y + 2(y + 1)$$

$$6y + 2y + 2$$

$$8y + 2$$

$$11. \quad 2(4a - 1) + a$$

$$8a - 2 + a$$

$$9a - 2$$

$$12. \quad 6r - 2(r + 4)$$

$$6r - 2r - 8$$

$$4r - 8$$

$$13. \quad 3(m + 5) - 10$$

$$3m + 15 - 10$$

$$3m + 5$$

$$14. \quad 2(3w - 5) + 3w$$

$$6w - 10 + 3w$$

$$9w - 10$$

$$15. \quad 5 - 2(4x + 3)$$

$$5 - 8x - 6$$

$$-8x - 1$$

Simplify each expression by using the distributive property combining like terms.

$$16. \quad y + 3(2y + 1)$$

$$1y + 6y + 3$$

$$\boxed{7y + 3}$$

$$17. \quad 5 + 2(4x - 1)$$

$$5 + 8x - 2$$

$$\boxed{3 + 8x}$$

$$18. \quad 8 - 2(x - 4)$$

$$8 - 2x + 8$$

$$\boxed{16 - 2x}$$

Mr. Brust simplified the following expressions incorrectly. Help a math teacher out! Circle his mistake and show the correct answer.

$$19. \quad 8 + 2(3p + 1)$$

$$\text{Mistake: } 10(3p + 1)$$

$$30p + 10$$

$$8 + 2(3p + 1)$$

$$8 + 6p + 2$$

$$\boxed{10 + 6p}$$

$$20. \quad 3d - 2(d - 4)$$

$$3d - 2d - 8$$

$$1d - 8$$

$$3d - 2(d - 4)$$

$$3d - 2d + 8$$

$$\boxed{d + 8}$$

You have to distribute the 2 first

You can't add 8 and 2 to get 10!!!

-2 times -4 is positive 8 not -8!