

Name _____



Generate Equivalent Expressions

Equivalent expressions are two or more expressions that are equal for any value of the variable in the expressions. You can use the properties of operations to write equivalent expressions.

Write an equivalent expression for $4c + 2 + c$.

Step 1 Identify like terms. $4c$ and c

Step 2 Use properties of operations to combine like terms.

Commutative Property of Addition: switch 2 and c	$4c + 2 + c = 4c + c + 2$
Associative Property of Addition: group $4c$ and c	$= (4c + c) + 2$
Add $4c$ and c .	$= 5c + 2$

Use properties of operations to write an equivalent expression by combining like terms.

1. $7x + 2x + 5x$

2. $8a + 11 - 2a$

3. $12b - 8b + 3$

4. $9c - 6 + c$

5. $4p + 1 - p$

6. $8y - 2y + \frac{1}{2}$

Use the Distributive Property to write an equivalent expression.

7. $3(m + 7)$

8. $4(2t + 3)$

9. $5(9.5 + 6r)$

10. $8(4n - 2n)$

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Basic Operations and Equivalent Expressions - Matching Worksheet

Match and solve the expressions. Write the letter of the answer that matches the expression.

_____ 1. $4(a + b)$

a. $18x + 18$

_____ 2. $(27a + 24b)$

b. $4a + 4b$

_____ 3. $9(x + 2y)$

c. $5(9 + 10b)$

_____ 4. $2(9x + 9)$

d. $9x + 18y$

_____ 5. $(45 + 50b)$

e. $3(9a + 8b)$

