

Identifying Equivalent Expressions

Math Message

- 1 Cross out expressions in the name-collection box that are NOT equivalent. Record one equivalent expression that could be added to the name-collection box.

$9(x + 1) + 3(x + 1)$	
$9x + 9 + 3x + 3$	$12x + 10 + 4 \div 2$
$7(x + 2) + 3$	$12x + 2$
$9x + 3x + 9 + 3$	$9x + 1 + 3x + 1$
$(30 - 18) + 10x + 2$	$12(x + 1)$

- 2 Explain how you determined whether an expression was equivalent to $9(x + 1) + 3(x + 1)$.

- 3 Cyrus says $9(x + 1) + 3(x + 1)$ and $7(x + 2) + 3$ are equivalent expressions. He substituted 1 for x and found that they were both equal to 24. How can they both equal 24 and still not be equivalent expressions?

For Problems 4–5, find the simplest form for each expression.

4 $7 + (5 - 3) * x + 1 + x$ Simplest form: _____

5 $x + 2.5x + b + 5x$ Simplest form: _____

- 6 Simplify the expressions below. Are they equivalent? _____

$2x + 4 * 3 + 3x + 8$ $4x + x + x + 20$

Explain. _____
