

MasterMath

Perfect Practice Worksheet

The Distributive Property

Name _____

Date _____

1. Use the Distributive Property to simplify these expressions:

	Simplified
$5(3 + x)$	$15 + 5x$
$2(b + 3)$	$2b + 6$
$6(z - 4)$	$6z - 24$
$3 + 2(x + 1)$	$3 + 2x + 2 = 2x + 5$
$5(b + 3) - 10$	$5b + 5$
$3x + 5(2 + 3)$	$3x + 25$

	Simplified
$3(2 + x)$	$6 + 3x$
$x(4 + 2)$	$6x$
$3y(2 + 1)$	$3y(3) = 9y$
$r(5 * 3)$	$15r$
$6(2 + x)$	$12 + 6x$
$9(x - 5)$	$9x - 45$

2. Use the Distributive Property and Mental Math to find the product;

	Product
3×21	$3(20+1) = 60 + 3 = 63$
6×12	72
12×50	$(10 + 2)50 = 500 + 100 = 600$
8×28	$8(30-2) = 240 - 16 = 224$

	Product
$5(88)$	$5(80 + 8) = 400 + 40 = 440$
12×43	$430 + 86 = 516$
6×22	132
$3 * 14$	$3(10 + 4) = 30 + 12 = 42$

3. Are these statements true or false?

	True or False
$6(x + 2) = 6x + 2$	false
$5x + 10 = 5(x + 2)$	true
$152 \times 20 = 20(150 + 2)$	true
$49 \times 9 = 49(10-1)$	true
$3(2 - x) = 6 + 6x$	false

4. On average, you can make 2 free throws in a row. On average, your brother makes x more free throws in a row than you do. Your father on average makes twice as many free throws as your brother. Write an expression to determine how many free throws on average your father makes, and then simplify the expression using the Distributive Property.

Your free throw average = 2

Brother's free throw average = $2 + x$

Equation: $F = 2(2 + x)$

Simplified: $F = 4 + 2x = 2x + 4$

5. Mr. Brown's Math Class averaged 13 correct answers on school's Final Exam. Ms. Jones' class average x correct answers fewer than Mr. Brown's class. Ms. White's advanced class averaged twice as many correct answers as Ms. Jones' class. Write an expression to determine the average correct answers for Ms. White's class (W), and then simplify the expression using the Distributive Property.

Mr. Brown's Average = 13

Ms. Jones' Average = $13 - x$

Equation: $W = 2(13-x)$

Simplified: $W = 26 - 2x$