

Name _____

Date _____

Equivalent Expressions

Directions: Decide if each set of expressions are equivalent. For each set of expressions that are not equivalent, rewrite one of the two expressions to make it equivalent with the other one.

1. $y + y + y = 3y$ True False	2. $4x^5 = 4 * x * x * x * x * x$ True False	3. $4 - z = z - 4$ True False
4. $5y + 8 = 8 + y + y + y + y + y$ True False	5. $n * n * n + 5 = n^3 + 5$ True False	6. $3x - y = y - x * x * x$ True False
7. $6a + 2a = a + a + a + a + a + a + a + a$ True False	8. $2y + 3x = y + y + x + x + x$ True False	9. $b^4 + 2c = b + b + c * c * c * c$ True False
10. $m * m * m * m * n * n = 4m + 2n$ True False	11. $2x + 4y + z = z + x + x + y + y + y + y$ True False	12. $a * a + b + b + b + 2 = a^2 + 3b + 2$ True False

Key

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Directions: Decide if each set of expressions are equivalent. For each set of expressions that are not equivalent, rewrite one of the two expressions to make it equivalent with the other one.

<p>1. $y + y + y = 3y$</p> <p>True False</p>	<p>2. $4x^5 = 4 * x * x * x * x * x$</p> <p>True False</p> <p>$4x^5 = 4 * x * x * x * x * x$ or $4x^4 = 4 * x * x * x * x$</p>	<p>3. $4 - z = z - 4$</p> <p>True False</p> <p>$4 - z = 4 - z$ or $z - 4 = z - 4$</p>
<p>4. $5y + 8 =$ $8 + y + y + y + y + y$</p> <p>True False</p>	<p>5. $n * n * n + 5 = n^3 + 5$</p> <p>True False</p>	<p>6. $3x - y = y - x + x + x$</p> <p>True False</p> <p>$3x - y = x + x + x - y$ or $y - 3x = y - x + x + x$</p>
<p>7. $6a + 2a =$ $a + a + a + a + a + a + a$</p> <p>True False</p>	<p>8. $2y + 3x = y + y + x + x + x$</p> <p>True False</p>	<p>9. $b^4 + 2c =$ $b + b + c * c * c * c$</p> <p>True False</p> <p>$b^4 + 2c = b * b * b * b + c + c$ $2b + c^4 = b + b + c * c * c * c$</p>
<p>10. $m * m * m * m * n * n =$ $4m + 2n$</p> <p>True False</p> <p>$m * m * m * m * n * n = m^4 * n^2$ or $m + m + m + m + n + n = 4m + 2n$</p>	<p>11. $2x + 4y + z =$ $z + x + x + y + y + y + y$</p> <p>True False</p>	<p>12. $a * a + b + b + b + 2 =$ $a^2 + 3b + 2$</p> <p>True False</p>

