

Name _____

Identify Equivalent Expressions

Use properties of operations to determine whether the expressions are equivalent.



COMMON CORE STANDARD—6.EE.4
Apply and extend previous understandings of arithmetic to algebraic expressions.

1. $2s + 13 + 15s$ and
 $17s + 13$

2. $5 \times 7h$ and $35h$

3. $10 + 8v - 3v$ and $18 - 3v$

equivalent

4. $(9w \times 0) - 12$ and $9w - 12$

5. $11(p + q)$ and
 $11p + (7q + 4q)$

6. $6(4b + 3d)$ and $24b + 3d$

7. $14m + 9 - 6m$ and $8m + 9$

8. $(y \times 1) + 2$ and $y + 2$

9. $4 + 5(6t + 1)$ and $9 + 30t$

10. $9x + 0 + 10x$ and $19x + 1$

11. $12c - 3c$ and $3(4c - 1)$

12. $6a \times 4$ and $24a$

Problem Solving

13. Rachel needs to write 3 book reports with b pages and 3 science reports with s pages during the school year. Write an algebraic expression for the total number of pages Rachel will need to write.

14. Rachel's friend Yassi has to write $3(b + s)$ pages for reports. Use properties of operations to determine whether this expression is equivalent to the expression for the number of pages Rachel has to write.