

Equivalent Expressions HW

Name: _____

Date: _____

1. Which expression is equivalent to the expression below?

$$g + g + g + g + g + g$$

- A. $6 + g$ B. g^6 C. $6g$ D. $\frac{g}{6}$

2. Which expression is equivalent to $5(4x + 3) - 2x$?

- A. $18x + 15$ B. $18x + 3$
C. $7x + 8$ D. $2x + 8$

3. Which expression is equivalent to $60 - 3y - 9$?

- A. $3(17 - y)$ B. $3(20 - y) - 3$
C. $17(3 - y)$ D. $20(3 - 3y) - 9$

4. Which quantity could go in the blank to make the equation below true?

$$x + 2x + \underline{\hspace{2cm}} = 5x$$

- A. 2 B. 3 C. $2x$ D. $3x$

5. Which two expressions are equivalent for any value of y ?

- A. $3(3y + 3)$ and $6y + 6$
B. $3(3y + 3)$ and $9y + 6$
C. $9(y + 3)$ and $12 + 9y$
D. $9(y + 3)$ and $27 + 9y$

6. Which pair of expressions is equivalent for any variable value greater than zero?

- A. $3(x + 2)$ and $3x + 2$
B. $4d + 2e$ and $8d + e$
C. $f + f + f + g$ and $3fg$
D. $b + b + 3c$ and $2b + 3c$

7. Ms. Peterson wrote the expression below on the chalkboard for her class. She asked the students to write an equivalent expression using no more than one set of parentheses.

$$4(3x + 5y + 2z) + 3(x - z)$$

- Tom wrote $12x + 20y + 8z$
- Jenna wrote $5(3x + 4y + z)$
- Chris wrote $15x + 20y - 5z$

Which, if any, of the three students wrote an expression that is equivalent to Ms. Peterson's expression?