

## Sum 5 Review

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: \_\_\_\_\_

### Summative 5 Review

Solve each problem. *SHOW ALL YOUR WORK.*

1. Write a completely simplified expression:

$$6 + 5(4r - 8)$$

2. Evaluate  $n - 4x + 15$  when  $n = 8$  and  $x = 4$ .

3. Dr. Fox simplified the following expression:  $-6(5a - 2n + 7n)$

Dr. Fox believes the simplified version of this expression is  $-30a - 12n + 42n$ .  
Is she correct? If not, what mistake did she make and what is the correct version of the simplified expression?

4. A regular pentagon has a perimeter of  $10x + 20$ . What is the length of each side of the pentagon? Explain.

## Sum 5 Review

5. Expand the following expression:  $\frac{2}{7}(3x - 2.5)$

6. Mrs. Hovis told Mr. Hovis that if these two expressions were equivalent, she would take him to Hawaii for vacation next summer. Should she start saving up her money?

$$5(2x + 7) - 3 \text{ and } 10x + 32$$

7. Use the GCF to factor  $10x - 25y$ .

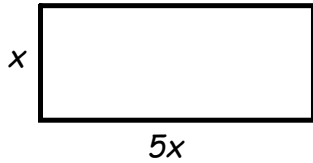
8. Mrs. Wolf wanted sushi for dinner, so she placed an order for three California rolls, a Green Hulk roll, and a Spicy Tuna roll. However, when Mr. Wolf and his oldest son heard that she was placing a sushi order, they wanted her to order the same thing for both of them. Let  $c$  = the number of California rolls, let  $g$  = the number of Green Hulk rolls, and let  $s$  = the number of Spicy Tuna rolls.

A. Write an expression in factored form to model Mrs. Wolf's sushi order.

B. Rewrite your expression in expanded form to model Mrs. Wolf's sushi order.

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9. A rectangle is five times as long as it is wide. Write two different equivalent expressions that would determine the perimeter of this rectangle.



Expression 1: \_\_\_\_\_

Expression 2: \_\_\_\_\_

10. Malby bought 30 tickets for the "Swim with the Piranhas" event. Each time he swims with the piranhas it costs him 6 tickets. So far he has swam with the piranhas  $x$  times. Which expressions represent the number of tickets that Malby has left?

A.  $6x + 30$

D.  $6(x - 5)$

B.  $30 - 6x$

E.  $3(10 + 2x)$

C.  $6(5 - x)$

F.  $3(10 - 2x)$

11. Write an equivalent expression for each situation.

A.  $\frac{1}{5} - \frac{4}{6}x + \frac{5}{6}x$  \_\_\_\_\_

B.  $\frac{1}{2}x + \frac{2}{3} + \frac{1}{2}x - \frac{1}{3}$  \_\_\_\_\_

C.  $\frac{3}{7}y + \frac{5}{9}x - \frac{2}{7}y + \frac{3}{9}x$  \_\_\_\_\_

12. Distribute to write another expression that is equivalent.

$$\frac{1}{4}(2.40 - 12.40x) = \underline{\hspace{2cm}}$$