Name: $\qquad$ Teacher: $\qquad$ School: $\qquad$

## Grade 7, Lesson 1 , Writing, Evaluating and Finding Equivalent Expressions with Rational Numbers

Three friends went to the movies. Each purchased a medium-sized popcorn for $p$ dollars and a small soft drink for $s$ dollars.
a. Write the expression that represents the total amount of money (in dollars) the three friends spent at the concession stand.
b. The concession stand charges $\$ 6.50$ for a medium-sized popcorn and $\$ 4.00$ for a small soft drink. Find the total spent on refreshments if...

- The friends buy 3 popcorn and 3 drinks.
- The friends buy 2 popcorns and 4 drinks.
- The friends buy 5 popcorns and 2 drinks.

Name: $\qquad$ Teacher: $\qquad$ School: $\qquad$

## Grade 7: Lesson 2 Use Properties of Operations to Generate Equivalent Expressions

Rewrite these expressions as equivalent expressions without using a calculator
a. $3(2 x)$
b. $4 y(5)$
c. $4(2)(z)$
d. $3(2 x)+4 y(5)$
e. $3(2 x)+4 y(5)+4(2)(z)$
f. Alexander says that $3 x+4 y$ is equivalent to $3(4)+x y$ because of any order, any grouping. Is he correct? Why or why not?

Name: $\qquad$ Teacher: $\qquad$ School: $\qquad$

## Grade 7: Lesson 3 Simplifying and Proving Expressions

Simplify each expression. Verify that your expressions are equivalent by evaluating each expression using $x=5$.
a. $3 x+(2-4 x)$
b. $3 x+(-2+4 x)$
c. $-3 x+(2+4 x)$
d. $3 x+(-2-4 x)$
e. $3 x-(2+4 x)$
f. $3 x-(-2+4 x)$
g. $3 x-(-2-4 x)$
h. $3 x-(2-4 x)$
i. $\quad-3 x-(-2-4 x)$

Name: $\qquad$ Teacher: $\qquad$ School: $\qquad$

## Grade 7: Lesson 4 Inequalities

Solve each inequality. Justify your answers.
a. $\mathrm{x}-7 \leq 9$
b. $x+7 \leq 9$
c. $x+7 \leq-9$
d. $x-7 \leq-9$
e. $3 x>9$
f. $-3 x>9$
g. $3 x>-9$
h. $-3 x>-9$

Name: $\qquad$ Teacher: $\qquad$ School: $\qquad$

## Grade 7: Lesson 5 Real world inequalities

Solve the inequality and interpret the solution:

The carnival owner pays the owner of an exotic animal exhibit $\$ 650$ for the entire time the exhibit is displayed. The owner of the exhibit has no other expenses except for a daily insurance cost. If the owner of the animal exhibit wants to make more than $\$ 500$ in profits for the $51 / 2$ days, what is the greatest daily insurance rate he can afford to pay?

