Name: _____ Date: _____

EXPRESSIONS AND EQUATIONS – Solving Equations in Real-World Contexts

CCSS Math Content 6.EE.B.7: Solve real-world and mathematical problems by writing and solving equations of the form and for cases in which *p*, *q*, and *x* are all nonnegative rational numbers.

SHARPEN YOUR SKILLS:

Write and solve an equation to answer the question. Show your work.

1. John runs a mile two minutes faster than his Uncle Lee. Uncle Lee runs a mile in 10 minutes. How long does it take John to run a mile?

_____

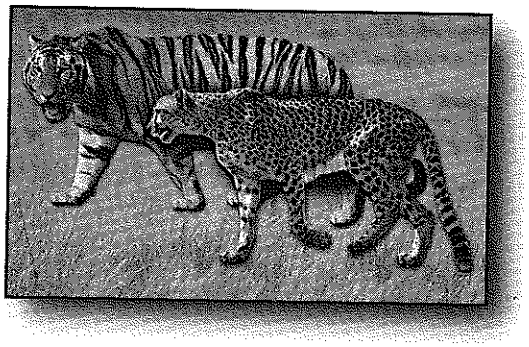
2. Restaurant A can seat three times as many customers as Restaurant B. Restaurant A can seat 129 customers. How many customers can Restaurant B seat?

_____

3. A cheetah can run twice as fast as a tiger. A cheetah can run 70 miles per hour. How fast can a tiger run?

_____

_____



4. An egg contains three more grams of protein than an avocado. An egg contains six grams of protein. How many grams of protein are in an avocado?

_____

APPLY YOUR SKILLS:

Daniel is two years older than Beatrice. Sydney is four times as old as Daniel. Sydney is 20 years old. Use equations to determine the ages of Daniel and Beatrice. Show your work.

_____

_____

Name: _____ Date: _____

EXPRESSIONS AND EQUATIONS – Relationships Between Independent and Dependent Variables

CCSS Math Content 6.EE.C.9: Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.

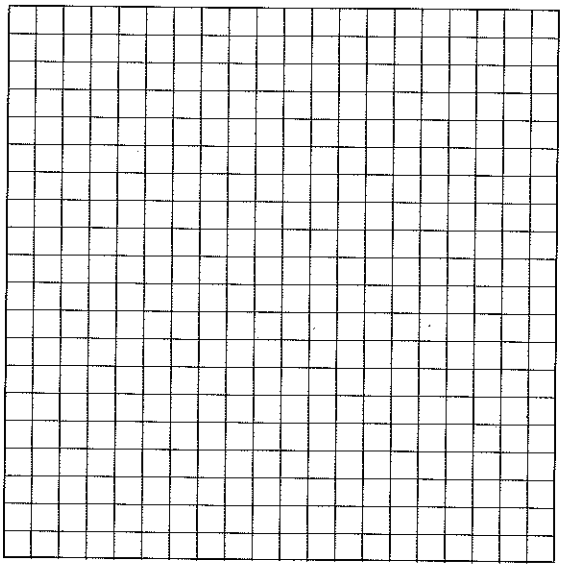
SHARPEN YOUR SKILLS:

The Environment Club is selling reusable cloth sandwich bags to raise money for the school garden. They are selling the bags for $5 each. They spent $50 on supplies to make the bags.

1. Write an equation that gives the Environment Club's profit in terms of the number of bags sold. _____

2. Complete the table, and then graph the data.

Number of Bags	Profit (in dollars)
0	
1	
2	
5	
10	
20	



APPLY YOUR SKILLS:

Analyze your equation, table, and graph above.

1. Write a few sentences about the relationship between the equation, table, and graph.

_____

_____

_____

_____

2. How many bags must the Environment Club sell to break even? That is, when will their profit be $0? Explain how you determined your answer. _____

_____

_____