	Jakarta International School 8th Grade – AG1 ***Practice Test - Green*** Unit 1: Solving Linear Equations	Name: _____ Date: _____ *Score*: 25

Goal 2: Use problem solving processes and skills to solve real world problems.

Clearly show required work and follow direction to earn full credit!!!

For each problem, complete the 4 step problem solving process.
(4 points per problem – 1 point for each step)

1. **Define a variable expression for all unknowns**
2. **Write an equation for the situation**
3. **Find the solution and write your answer in a meaningful way**
4. **Check your solution with the facts from the problems**

Demonstrate your skill at applying the 4-step problem solving process by solving the following word problems. Show all steps and work.

1. Twenty more than four times a number is equal to eight times the number. Find the number.

(4)

2. Jennifer is 5 years younger than Amanda. If the sum of their ages is 51, how old is each of them?

(4)

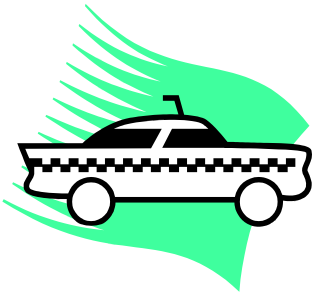
3. The length of a rectangle is 5 more than twice the width. If the perimeter is 40, find the length and width of the rectangle.

(4)

4. The sum of 3 consecutive odd integers is -9. What are the three integers?

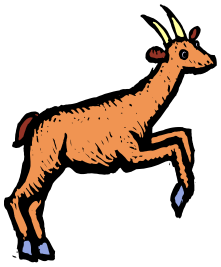
(4)

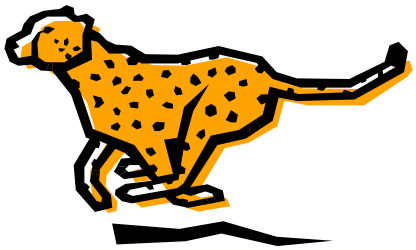
5. Two cars travel the same distance. The first car travels at a rate of 50 miles per hour And reaches its destination in t hours. The second car travels at a rate of 60 miles per hour and reaches its destination 2 hours earlier than the first car. How long does it take for first to reach its destination?



(3)

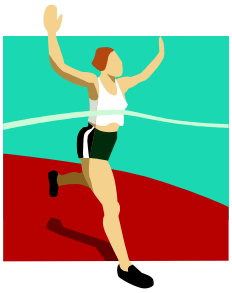
6. A leopard running 70 feet per second is 120 feet behind the gazelle running 50 feet per second. How long will it take the leopard to catch up to the gazelle?





(2)

7. In gym class you run $2\frac{1}{4}$ miles on the track. One lap is $\frac{3}{4}$ mile. How many laps did you run?



(1)

8. A plumber charges $5 per service call plus $30 an hour plus the cost of the parts used. The total bill for a recent job was $200. If the parts for this job cost $75 and x represents the number of hours worked, which equation below can be used to model this problem. You do not need to rewrite the answer. Circle/High light your answer.

A. $5+30+75x=200$
B. $5+30x+75=200$
C. $5+30+x+75=200$
D. $5x+30+75=200$

(1)

9. Your school band needs to buy new percussion equipment. The equipment will cost $ 3000. You have collected $ 600 in previous fundraisers. If you sell sandwiches at $ 3 each, how many sandwiches will you need to raise the remaining funds?

(2)