## RIT <br> National Technical Institute for the Deaf Math Competition for Deaf and Hard-of-Hearing Students

## - RIT Regional Competition Target Round Problems 1-8

Name $\qquad$

## DO NOT BEGIN UNTIL YOU ARE INSTRUCTED TO DO SO.

This section of the competition consists of 8 problems. You will have 20 minutes to complete all the problems. You are allowed to use a basic calculator. You are not allowed to use books or other aids during this round. Calculations may be done on scratch paper. All answers must be complete and legible. If the answer is expressed in common fraction, reduce the fraction to lowest terms. Record your final answer in the designated space on the problem sheet. The required unit for the answer is included. If you complete the problems before time is called, use the time remaining to check your answers.

| Total Correct | Scorer's Initials |
| :---: | :---: |
|  |  |
|  |  |

1. A line has a slope of -2 and includes the points $(r, 0)$ and
2. $\qquad$ $(2,8)$. What is the value of $r$ ?
3. Seawater weighs 64 pounds per cubic foot. What is the weight, in pounds, to fill the seawater in an aquarium shown below?

Seawater aquarium

3. Solve for $x:(x+3)-(5 x-8)=39$
4. A jar contains one purple marble, two yellow marbles,
4. $\qquad$ \% and nine black marbles. Tomas picks one marble from the jar. What is the probability that the marble is black? Write your answer in percentage.
5. Evaluate the expression. Write your answer as a common fraction.

$$
\frac{1}{4}-\frac{2}{5}\left(\frac{3}{4}\right)
$$

6. Ava bought 3 pounds of banana peppers and 4 pounds of jalapenos. How much did she spend?

| Type of Peppers | Cost per pound |
| :---: | :---: |
| Jalapeno | $\$ 1.79$ |
| Bell | $\$ 1.42$ |
| Poblano | $\$ 2.73$ |
| Banana | $\$ 2.49$ |

7. The pie chart below shows the number of sandwiches sold at a cafeteria. What percentage of the sandwiches sold are peanut butter and jelly? Write your answer to the nearest tenth.

8. $\$$ $\qquad$
9. A circular cake was cut into 16 congruent slices. If two $\qquad$ slices were eaten, what is the sum of the central angles of the slices that were not eaten?
