## Activity 3 - Answers

Correct Quiz Answers--Income Earned and Taxes Paid

| Number of <br> questions <br> correct | Earnings | Taxes paid | Total earnings <br> before taxes | Total <br> taxes paid |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 5 | 0 | 5 | 0 |
| 2 | 5 | 0 | 10 | 0 |
| 3 | 5 | 1 | 15 | 1 |
| 4 | 5 | 1 | 20 | 2 |
| 5 | 5 | 1 | 25 | 3 |
| 6 | 5 | 1 | 30 | 4 |
| 7 | 5 | 1 | 35 | 5 |

1. Graph individual data points from above on the graph below, with the "Total Earnings Before Taxes" on the horizontal-axis and the "Total Taxes Paid" on the vertical-axis.

2. What is the equation of the line for domain values of 0 to 10 ? $[y=0]$
3. What is the equation of the line for domain values greater than 10 ?
$[y=.2(x-10)]$

Activity 3-Answers (continued)
4. Knowing the same dollar amount was taken if a student got 3-7 correct what is the average tax ratio if you get 3 questions correct. How about 4? 5? 6? 7? [Answers will vary but might include: I think they will be the same because it is the same amount paid for every problem correct.]
5. Using the data below find the average tax ratio for each total earnings.

| Total Earnings Before <br> Taxes | Total Taxes Paid | Average tax ratio |
| :---: | :---: | :---: |
| 5 | 0 | 0 |
| 10 | 0 | 0 |
| 15 | 1 | .066 |
| 20 | 2 | .10 |
| 25 | 3 | .12 |
| 30 | 4 | .133 |
| 35 | 5 | .143 |

6a. What is a progressive tax? [A tax that takes a larger percentage of income from people in higher-income groups than from people in lower-income ones.]

6b. Create a graph of a progressive tax:


7a. What is a regressive tax? [A tax that takes a larger percentage of income from people in lower-income groups than from higher-income ones.]

7b. Create a graph of a regressive tax:

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Activity 3-Answers (continued)

8a. What is a proportional tax? [A tax that takes the same percentage of income from people in all income groups.]

8b. Create a graph of a proportional tax:


