Products per Minute- How many facts do you know?

STANDARDS

Content: Round numbers to given place values

Content: Solve problems involving decimal values

Content: Calculate rates

Content: Calculate averages

Content: Give evidence of work done to solve a problem

Process: Make conclusions from given data

TASK

How many multiplication facts can you correctly answer in a minute? You have data from when you were given 3 minutes, 2.5 minutes, and 2 minutes to complete as many multiplication facts as you could. Using this data find the average number of problems you can solve in per minute. Show work and explain using words what you did and why you did each step.

RUBRIC

<table>
<thead>
<tr>
<th>Criteria</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence (work) is shown of steps taken to find average number of problems per minute (note this is both a rate and an average)</td>
<td>Work clearly indicates progression of steps taken to solve problem</td>
<td>Some work is shown, but a step is missing leaving progression difficult to follow</td>
<td>Some work is shown, but more than one step is missing leaving progression unclear</td>
<td>x 2</td>
</tr>
<tr>
<td>Calculations are correct</td>
<td>All calculations performed correctly to arrive at right answer</td>
<td>1 - 2 errors in calculations</td>
<td>More than 2 errors in calculations</td>
<td>x 2</td>
</tr>
<tr>
<td>Answer is rounded to the nearest whole number</td>
<td>Answer is rounded to the nearest cent and stated as a phrase</td>
<td>Does not have one: answer rounded to the nearest cent or stated as a phrase</td>
<td>Answer is not rounded to nearest cent and is not stated as a phrase</td>
<td></td>
</tr>
<tr>
<td>Written explanation includes what was done and why it was done</td>
<td>Clearly write about what was done and why it was done</td>
<td>Write mostly about what was done but little about why it was done</td>
<td>Write some about what was done or why it was done but not both</td>
<td>x 3</td>
</tr>
</tbody>
</table>

Total _________/24
How many multiplication facts can you correctly answer in a minute? You have data from when you were given 3 minutes, 2.5 minutes, and 2 minutes to complete as many multiplication facts as you could. Using this data find the average number of problems you can solve in per minute. Show work. Then, explain using words what you did and why you did each step. There is more than one way to solve this problem. Be specific. *Also, double check your set up... make sure you find problems per minute not minutes per problem.

Copy your data below:

_____ problems in 3 min  _____ problems in 2.5 min  _____ problems in 2 min

Using all of this data, find the average number of problems you can solve per minute.

Rounded answer:

Unit rate written as a phrase: ________________________________
Looking at your work shown, write in words how you solved the problem. Also write in words why you took the steps you did to solve the problem.