### 7th grade  
#### Task 2  
#### Cereal

<table>
<thead>
<tr>
<th>Student Task</th>
<th>Compare two cereals to determine the ratio of protein to cereal and which of the two cereals has a higher ratio of protein.</th>
</tr>
</thead>
</table>
| Core Idea 1  
Number and Operations | Understand number systems, the meanings of operations, and ways of representing numbers, relationships, and number systems.  
- Develop, analyze, and explain methods for solving problems involving proportional reasoning and ratios. |
Cereal
This problem gives you the chance to:
• use ratios in context

Here is some information on the side of two boxes of cereal.

<table>
<thead>
<tr>
<th>Tasty Oats</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 grams of protein in 100 grams of cereal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cornbits</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 grams of protein in 45 grams of cereal</td>
</tr>
</tbody>
</table>

1. How many grams of Tasty Oats cereal will give you 9 grams of protein? ____________ grams

   Show your work.

2. Which cereal, Tasty Oats or Cornbits, has the higher ratio of protein?

   ______________

   Explain how you figured it out.

   ___________________________________________
   ___________________________________________
   ___________________________________________
   ___________________________________________
<table>
<thead>
<tr>
<th>Cereal</th>
<th>Test 7 Rubric</th>
</tr>
</thead>
</table>
| The core elements of performance required by this task are:  
• use ratios in context  
Based on these, credit for specific aspects of performance should be assigned as follows | points | section points |
| 1. Gives correct answer: 75 grams  
Shows work such as:  
\[
\frac{100 \times 3}{4}
\] | 2 | 1 | 3 |
| 2. Gives correct answer:  
**Tasty Oats**, supported by some correct explanation such as:  
\[
\text{Ratio of protein in Tasty Oats} = \frac{12}{100} = 0.12
\]  
and  
\[
\text{Ratio of protein in Cornbits} = \frac{5}{45} = 0.111...
\]  
or  
Method involving making either the amount of protein or the amount of cereal equal.  
*Partial credit*  
Explanation, but does not show calculations. | 2 | or | 2 | 1 | 4 |
| Total Points | 7 |