Students Worksheet 2nd

Class: Day/ Date:

Group:

Members:

1.

2.

3.

4.

**Basic of Competency:**

1.2 Using the operation and properties of integers and fractions in Problem solving.

**Indicators:**

- Solving the PISA’s Problem that related to integers operation by deciding the best solution of uncertainty.

- Solving the PISA’s problem that related to integers and fractions by adding/ multiplying integers to determine the position of object.

**Time Allocation:** 2 x 40 minutes
Problem 2 - Seals Sleep

A seal has to breathe even if it is asleep in the water. Martin observed a seal for one hour. At the start of his observation, the seal was at surface and took a breath. It then dove to the bottom of the sea and started to sleep. From the bottom it slowly floated to the surface in 8 minutes and took a breath again. In three minutes it was back at the bottom of the sea again. Martin noticed that this whole process was a very regular one.

Figure 1. Seals sleep

QUESTION:
AFTER ONE HOUR THE SEAL WAS . . .

A. AT THE BOTTOM           c. BREATHING
B. ON ITS WAY UP           d. ON ITS WAY DOWN
This problem is about planning the best route for a holiday.

Figures 1 and 2 show a map of the area and the distances between towns.

**Problem 1 - Holiday**

**Directions:**
1. With your friends in group, solve the problems by using four steps. Those are:
   1. Understanding the problem
   2. Making a plan to solve
   3. Solving the problem
   4. Checking your solution/Communicating your solution.
2. Ask to the teacher if you have any questions about the text.
3. You should solve the problems on the time which be given by the teacher and present it in front of the class.
**HOLIDAY – Question 1**

Calculate the shortest distance by road between Nuben and Kado.

Distance: .......................................... kilometres.

**HOLIDAY – Question 2**

Zoe lives in Angaz. She wants to visit Kado and Lapat. She can only travel *up to 300 kilometres* in any one day, but can break her journey by camping overnight anywhere between towns.

Zoe will stay for two nights in each town, so that she can spend one whole day sightseeing in each town. Show Zoe’s itinerary by completing the following table to indicate where she stays each night.

<table>
<thead>
<tr>
<th>Day</th>
<th>Overnight Stay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Camp-site between Angaz and Cado</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
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<tr>
<td>4</td>
<td></td>
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<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Angaz</td>
</tr>
</tbody>
</table>