



# Island Treasure Hunt

Due: \_\_\_\_\_

Goal: Create an island using a scale of  
\_\_\_\_\_ cm = \_\_\_\_\_ km

Using the following guidelines:

## Part 1:

- Name your island.
- Include a key with landmarks, terrains, water sources, the treasure, and a scale.
- The island must be at least 30 km wide and 25 km long.
- Include three types of terrain (mountains, jungle, quicksand, etc.) that are at least five km apart.
- Include four landmarks (graveyard, a tree, a monument, etc.) that are at least five km apart.
- Include a water source that is at least eight km long.
- Include an "X" where the treasure is located exactly ten km away from a water source.
- Name and label all landmarks, terrains, water sources, and treasures.

## Part 2:

- Fill out the table to calculate the distances between various landmarks on your map. Round to the nearest tenth.
- Answer the questions following the table. Be sure to include vocabulary terms!
- **Keep your work neat and organized.**
- **Review the rubric for how your island will be graded.**
- **Be CREATIVE and HAVE FUN!!!**

Fill in the table below. Use the next page to show your work on how you found the selected distances.

Distances	Landmark 1	Landmark 2	Landmark 3	Landmark 4	Terrain 1	Terrain 2	Terrain 3	Water Source	Treasure
Landmark 1									
Landmark 2									
Landmark 3									
Landmark 4									
Terrain 1									
Terrain 2									
Terrain 3									
Water Source									
Treasure									

What scale did you use? \_\_\_\_\_

What was your scale factor? \_\_\_\_\_

Work for table distances:

Landmark 1 to Landmark 2:

Landmark 2 to Landmark 3:

Landmark 3 to Landmark 4:

## Question Sheet

1. How did you determine the scale you used for your island?

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2. Describe your strategy of setting up and solving your proportions on the previous page. Make sure you include the words scale, cross products, units, and actual distance in your response.

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3. Describe how you determined where to place the various landmarks and terrains based on the given guidelines.

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This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface.

	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Use of Scale Factor</b>	Scale factor is used correctly for all calculations.	Scale factor is used correctly for some calculations. 1-2 mistakes.	Scale factor is used correctly for some calculations. 3-5 mistakes	Scale factor is used correctly for some calculations. 5+ mistakes
<b>Using Proportions</b>	Correctly set up proportions for scale drawings.	Proportions are set up correctly for some calculations. 1-2 mistakes.	Set up proportions that are incorrect for scaled drawings.	Fails to use proportions to show change of scale.
<b>Using Cross Products or Equal Ratios</b>	Demonstrates the ability to use cross products or equal ratios accurately to solve proportions. Measurements are correctly rounded to the nearest tenth with 0 to 1 calculation errors.	Uses cross products or equal ratios to solve proportions. Shows all work and rounds accurately to the nearest tenth. 1 to 2 calculation errors.	Uses cross products or equal ratios to solve proportions. Shows all work and attempts to round. 3 to 5 calculation errors.	Fails to use cross products or equal ratios to solve proportions. Does not attempt to round answers. Shows no work or has missing work. More than 5 calculation errors.
<b>Drawing/Model is Done to Scale</b>	An appropriate scale was used for the drawing. All landmarks, terrains, water sources, and treasure were included. Model is drawn accurately with 0 to 1 minor errors.	An appropriate scale was used for the drawing. Shows at least 8 of the required landmarks. Model is drawn accurately with 2-3 errors.	An appropriate scale was used for the drawing. Shows at least 7 of the required landmarks. Model is drawn accurately with 4-5 errors.	Fails to use an appropriate scale for the drawing. Shows fewer than 6 of the required landmarks. Model has more than 5 errors.
<b>Conceptual Understanding</b>	All questions were answered fully and completely showing a strong understanding of the concepts. Strong details.	All questions were answered showing a good understanding of the concepts. Has 1 mis-understanding. Some details.	All questions were answered showing some understanding of the concepts but no details were included.	Fails to show any understanding of the concepts. More than 3 misunderstandings.
<b>Use of Vocabulary</b>	Answers to questions included appropriate math vocabulary.	Answers to questions included some math vocabulary with minor errors. Using wrong term or definition	Answers to questions included minimal math vocabulary or contains major errors.	Fails to include any vocabulary in written responses.
<b>Drawing Presentation and Creativity</b>	Finished product is creative, neat, organized, colored, and includes all required information.	Finished product is creative, neat, colored, organized, and is missing 0-2 required pieces of information.	Lacks organization, missing 2-4 pieces of information. Not colored.	Fails to show any organization, is not colored, and is missing more than 4 pieces of information.

