

Ne'epapa Ka Hana 2.0
Sixth-Grade Mathematics Resources
STEMD² Book Series

STUDENT ACTIVITIES

LET'S

CHANT FOR RAIN



STEMD² Research & Development Group
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<http://stemd2.com/>

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Ne'epapa Ka Hana Sixth-Grade Mathematics Resources

Let's Chant for Rain
Student Activities

Preview Release

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Unit 1: The Number System

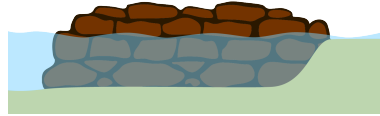


SBAC alignment for *Unit 1: The Number System Activity 1*

Claim(s)	Claim 1: Concepts and Procedures Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Assessment Target(s):	1 D: Apply and extend previous understandings of numbers to the system of rational numbers.
Content Domain:	The Number System
Standard(s):	6.NS.7 Understand ordering and absolute value of rational numbers.
DOK:	2

Unit 1: The Number System Activity 1

Let's go to a beach where two scientists are investigating the environment. One scientist is diving down in the water to investigate while the other scientist climbs the ocean cliff to investigate.



- The ocean surface is considered to be at an altitude of zero (0) feet.
- The ocean floor at the diving spot is at an altitude of -20 feet.
- The diving scientist is in the water at an altitude of -5 feet.
- The climbing scientist is above the ocean surface at an altitude of 15 feet.

For the following statements, select True or False and justify your answer by showing your work.

1. The distance from the climber to the diver is greater than the distance from the ocean surface to the ocean floor.

True

False

2. The distance from the climber to the ocean surface is the same as the distance from the diver to the ocean floor.

True

False

3. When the diver swims to an altitude of -10 feet, the diver will be the same distance below the ocean surface as the climber is above the ocean surface.

True False

4. When the diver swims to an altitude of -10 feet, the diver's distance to the ocean floor will be equal to the diver's distance to the ocean surface.

True False

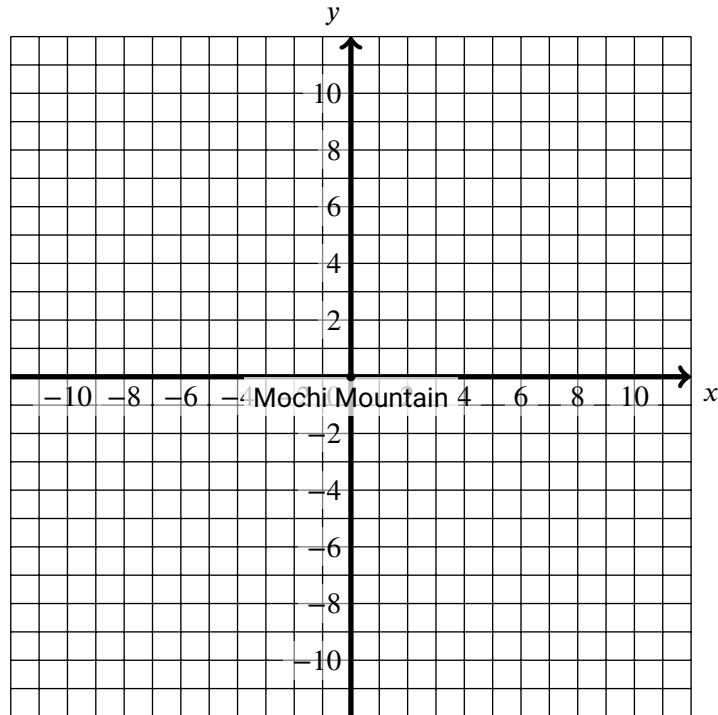
SBAC alignment for *Unit 1: The Number System Activity 2*

Claim(s)	Claim 1: Concepts and Procedures Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Assessment Target(s):	1 D: Apply and extend previous understandings of numbers to the system of rational numbers.
Content Domain:	The Number System
Standard(s):	6.NS.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
DOK:	3

Unit 1: The Number System Activity 2

People often think of fire and rocks when they think about volcanoes. However, volcanoes come in many different shapes, sizes, and colors. There are volcanoes that are covered in snow, hidden in forests, and even under water.

Below is an area with a lot of volcanic activity, drawn on a coordinate plane.



- A snowy volcano called Mochi Mountain is at the origin, $(0, 0)$. Plot and label the locations of five other volcanic places listed below.
 - Shave Ice Summit $(-8, 7)$
 - Manapua Mountain $(3, 7)$
 - Haupia Hill $(8, -6)$
 - Saimin Bowl $(-8, -2)$
 - Loco Moco Lookout $(-8, -6)$
- For the following statements, select True or False, based on the given information. Justify your answers by showing your work.
 - Loco Moco Lookout is further from Shave Ice Summit than it is from Haupia Hill.

True False
 - The distance from Shave Ice Summit to Manapua Mountain is equal to $|-8| + |3|$.

True False
 - The distance from Shave Ice Summit to Saimin Bowl is equal to $|7| + |-2|$.

True False

3. A Visitor's Center will be placed on the map with the same y -coordinate as the Manapua Mountain. If the Visitor's Center is the same distance from Manapua Mountain as the Loco Moco Lookout is from the Saimin Bowl, then what is the x coordinate of the Visitor's Center? Explain your answer.

Hint: There are two possible answers. Find just one of these answers.

