

Unit 4 Lesson 14: Absolute Value Meaning

1 Math Talk: Closest to Zero (Warm up)

Student Task Statement

For each pair of values, decide mentally which one has a value that is closer to 0.

$$-\frac{4}{5} \text{ or } \frac{5}{4}$$

$$\frac{1}{12} \text{ or } \frac{1}{14}$$

$$-0.001 \text{ or } 0.0001$$

$$1.3 \text{ or } \frac{4}{3}$$

2 What is Absolute Value?

Student Task Statement

1. One of the lowest places in Europe is 23 feet below sea level. We can use “-23 feet” to describe its elevation, and “ $|-23|$ feet” to describe its vertical distance from sea level. In the context of elevation, what would each of the following numbers describe?
 - a. 37 feet
 - b. $|37|$ feet
 - c. -6 feet
 - d. $|-6|$ feet
2. Water freezes at 0 degrees Celsius. For each pair of temperatures, which temperature is closest to the freezing point of water? Use absolute value to explain your reasoning.
 - a. 14°C or -15°C
 - b. -5°C or -2°C
 - c. -12°C or 18°C

3 Absolute Value Expressions

Student Task Statement

Find the value of these expressions.

1. $|10 - 12|$

2. $|-16 + 5|$

3. $3|9 - 4|$

4. $|8 - 10| - 16$

5. $2|-13 - 2| + 18$

6. $9 - |19 + 3|$