## 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.

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

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

-0.001 or 0.0001

1.3 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 “$\left|-23\right|$ feet” to describe its vertical distance from sea level. In the context of elevation, what would each of the following numbers describe?
	1. 37 feet
	2. $\left|37\right|$ feet
	3. -6 feet
	4. $\left|-6\right|$ 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.
	1. $14^{∘}C$ or $-15^{∘}C$
	2. $-5^{∘}C$ or $-2^{∘}C$
	3. $-12^{∘}C$ or $18^{∘}C$

### 3 Absolute Value Expressions

#### Student Task Statement

Find the value of these expressions.

1. $\left|10−12\right|$
2. $\left|-16+5\right|$
3. $3\left|9−4\right|$
4. $\left|8−10\right|−16$
5. $2\left|-13−2\right|+18$
6. $9−\left|19+3\right|$



© CC BY 2019 by Illustrative Mathematics®