## Unit 5 Lesson 1: Interpreting Negative Numbers

### 1 Using the Thermometer (Warm up)

#### Student Task Statement

Here is a weather thermometer. Three of the numbers have been left off.



1. What numbers go in the boxes?
2. What temperature does the thermometer show?

### 2 Fractions of a Degree

#### Student Task Statement

1. What temperature is shown on each thermometer?
2. Which thermometer shows the highest temperature?
3. Which thermometer shows the lowest temperature?
4. Suppose the temperature outside is $-4^{∘}C$. Is that colder or warmer than the coldest temperature shown? How do you know?



### 3 Seagulls Soar, Sharks Swim

#### Student Task Statement

Here is a picture of some sea animals. The number line on the left shows the vertical position of each animal above or below sea level, in meters.



1. How far above or below sea level is each animal? Measure to their eye level.
2. A mobula ray is 3 meters above the surface of the ocean. How does its vertical position compare to the height or depth of:
* The jumping dolphin?
* The flying seagull?
* The octopus?
1. An albatross is 5 meters above the surface of the ocean. How does its vertical position compare to the height or depth of:
* The jumping dolphin?
* The flying seagull?
* The octopus?
1. A clownfish is 2 meters below the surface of the ocean. How does its vertical position compare to the height or depth of:
* The jumping dolphin?
* The flying seagull?
* The octopus?
1. The vertical distance of a new dolphin from the dolphin in the picture is 3 meters. What is its distance from the surface of the ocean?

### 4 Card Sort: Rational Numbers (Optional)

#### Student Task Statement

1. Your teacher will give your group a set of cards. Order the cards from least to greatest.
2. Pause here so your teacher can review your work. Then, your teacher will give you a second set of cards.
3. Add the new set of cards to the first set so that all of the cards are ordered from least to greatest.



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