## Unit 4 Lesson 9: More and Less than 1%

### 1 Number Talk: What Percentage? (Warm up)

#### Student Task Statement

Determine the percentage mentally.

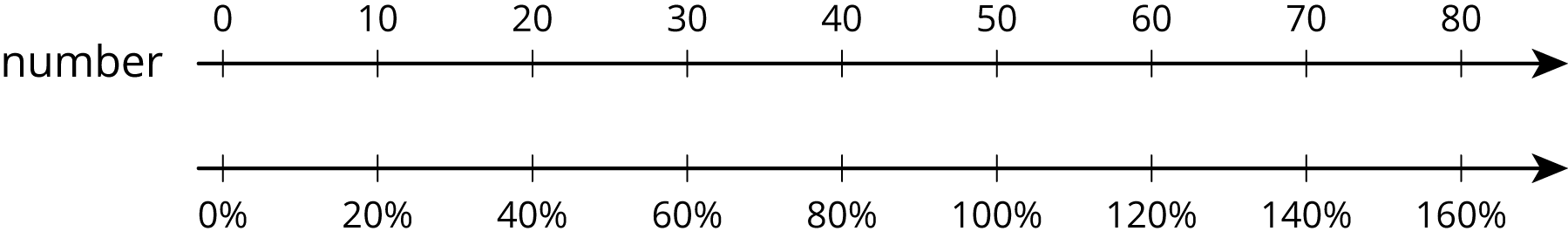
10 is what percentage of 50?

5 is what percentage of 50?

1 is what percentage of 50?

17 is what percentage of 50?

#### Activity Synthesis



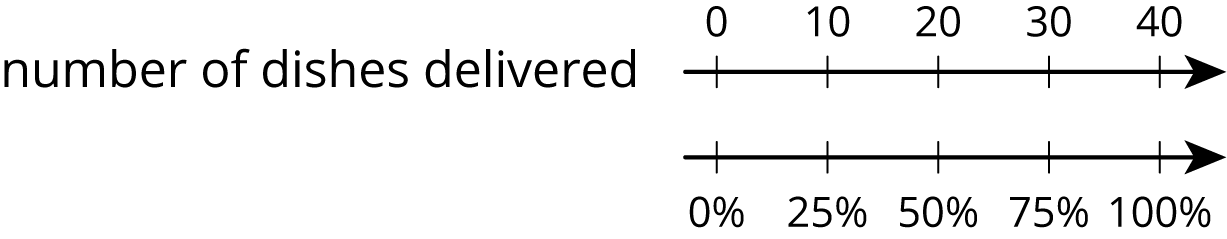
### 2 Waiting Tables

#### Student Task Statement

During one waiter’s shift, he delivered 13 appetizers, 17 entrées, and 10 desserts.

1. What percentage of the dishes he delivered were:
   1. desserts?
   2. appetizers?
   3. entrées?
2. What do your percentages add up to?

#### Activity Synthesis



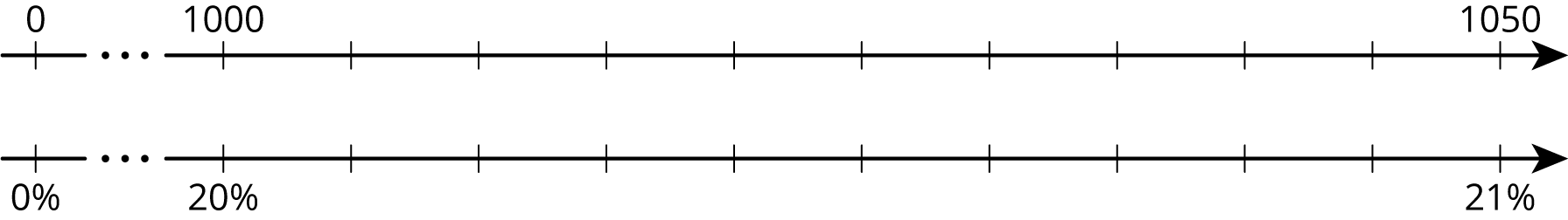
### 3 Fractions of a Percent

#### Student Task Statement

1. Find each percentage of 60. What do you notice about your answers?

* 30% of 60
* 3% of 60
* 0.3% of 60
* 0.03% of 60

1. 20% of 5,000 is 1,000 and 21% of 5,000 is 1,050. Find each percentage of 5,000 and be prepared to explain your reasoning. If you get stuck, consider using the double number line diagram.
   1. 1% of 5,000
   2. 0.1% of 5,000
   3. 20.1% of 5,000
   4. 20.4% of 5,000

* 

1. 15% of 80 is 12 and 16% of 80 is 12.8. Find each percentage of 80 and be prepared to explain your reasoning.
   1. 15.1% of 80
   2. 15.7% of 80

### 4 Population Growth (Optional)

#### Student Task Statement

1. The population of City A was approximately 243,000 people, and it increased by 8% in one year. What was the new population?
2. The population of city B was approximately 7,150,000, and it increased by 0.8% in one year. What was the new population?



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