Unit 3 Lesson 16: Finding the Percentage

1 True or False: Percentages (Warm up)

Student Task Statement

Is each statement true or false? Be prepared to explain your reasoning.

1. 25% of 512 is equal to $\frac{1}{4} \cdot 500$.

2. 90% of 133 is equal to $(0.9) \cdot 133$.

3. 30% of 44 is equal to 3% of 440.

4. The percentage 21 is of 28 is equal to the percentage 30 is of 40.

2 Jumping Rope

Student Task Statement

A school held a jump-roping contest. Diego jumped rope for 20 minutes.

1. Jada jumped rope for 15 minutes. What percentage of Diego's time is that?

2. Lin jumped rope for 24 minutes. What percentage of Diego's time is that?

3. Noah jumped rope for 9 minutes. What percentage of Diego's time is that?

4. Record your answers in this table. Write the quotients in the last column as decimals.

	time (minutes)	percentage	$\text{time} \div 20$
Diego	20	100	$\frac{20}{20} = 1$
Jada	15		$\frac{15}{20} =$
Lin	24		$\frac{24}{20} =$
Noah	9		$\frac{9}{20} =$

5. What do you notice about the numbers in the last two columns of the table?

3 Restaurant Capacity

Student Task Statement

A restaurant has a sign by the front door that says, "Maximum occupancy: 75 people." Answer each question and explain or show your reasoning.

1. What percentage of its capacity is 9 people?

2. What percentage of its capacity is 51 people?

3. What percentage of its capacity is 84 people?