

# Activity 20 Assessment

## Using Estimation for Multiplication and Division

### Fluency with Multiplication and Division Facts

Recalls multiplication and division facts to demonstrate and fluently recall facts to 100.

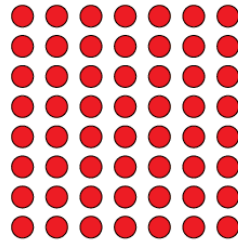
$$8 \times 7 = 56$$

"I know my facts up to  $10 \times 10$ ."

Uses inverse operation to find multiplication and division facts.

$$56 \div 8 = ?$$

$$8 \times ? = 56$$



"I can use multiplication to solve division problems."

Applies estimation strategies to multiply and divide larger numbers.

Gardeners planted 236 plants in rows of 5.  
Estimate how many rows were planted.

$$236 \div 5 = ?$$

"I know  $100 \div 5 = 20$ , so  $200 \div 5 = 40$ .  
Because 236 is close to 200,  
I estimate about 40 rows."

### Observations/Documentation

# Activity 20 Assessment

## Using Estimation for Multiplication and Division

### Fluency with Multiplication and Division Facts (cont'd)

Uses mental math strategies and properties of operations to multiply and divide larger numbers.

$$5 \times 47 = ?$$

"I can decompose the numbers to make it easier to multiply:  
 $5 \times 40 = 200$ ,  $5 \times 7 = 35$ ,  
 and  $200 + 35 = 235$ ."

Applies properties of operations and partial products and connects to algorithms.

$$16 \times 12 = ?$$

	10	6
10	$10 \times 10$	$6 \times 10$
2	$10 \times 2$	$6 \times 2$

$$\begin{aligned}
 16 \times 12 &= (10 \times 10) + (10 \times 2) + (6 \times 10) + (6 \times 2) \\
 &= 100 + 20 + 60 + 12 \\
 &= 192
 \end{aligned}$$

Flexibly and fluently selects strategies and properties of operations to solve problems involving larger numbers.

375 students are going on a field trip. Each bus holds 25 students. How many buses are needed?

$$\begin{array}{r}
 25 \overline{)375} \\
 \underline{250} \phantom{0} \\
 125 \\
 \underline{125} \phantom{0} \\
 0 \phantom{0} \\
 \hline
 15
 \end{array}$$

"I subtracted multiples of 25, then added."

### Observations/Documentation