

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.

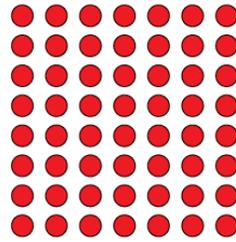
$$8 \times 7 = 56$$

"I know my facts up to 10×10 ."

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:

$$5 \times 40 = 200, 5 \times 7 = 35, \text{ and } 200 + 35 = 235."$$

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

$$16 \times 12 = ?$$

	10	6
10	10×10	6×10
2	10×2	6×2

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

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?

$$\begin{array}{r} 25 \overline{)375} \quad 10 \\ \underline{250} \\ 125 \\ \underline{125} \\ 0 \end{array} \begin{array}{l} \\ 5 \\ 15 \end{array}$$

"I subtracted multiples of 25, then added."

Observations/Documentation