Activity 20 Assessment

Consolidating Multiplying and Dividing Larger Numbers

Multiplying and Dividing Larger Numbers

Uses divisibility tests to identify numbers that are divisible by 2, 3, and 5.

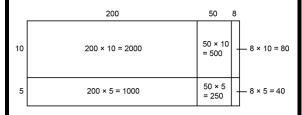
285

"Not divisible by 2 as the ones digit is not even. Divisible by 3 because the sum of the digits, 15, is divisible by 3.

Divisible by 5 as the ones digit is 5."

Models multiplication and division situations concretely and pictorially (i.e., using Base Ten Blocks, arrays, open arrays)

 $258 \times 15 = ?$



"I used an open array and added all the areas: 2000 + 1000 + 500 + 250 + 80 + 40 = 3870. So, $258 \times 15 = 3870$."

Uses standard algorithms to multiply and divide

$$258 \times 15 = ?$$

258 × 15

Multiply: 258 × 5 1290

Multiply: $258 \times 10 + 2580 \over 3870$

"I used the standard algorithm to multiply."

Observations/Documentation

Activity 20 Assessment

Consolidating Multiplying and Dividing Larger Numbers

Multiplying and Dividing Larger Numbers (cont'd)

Estimates to determine if answer to multiplication or division problem is reasonable

$$258 \times 15 = 3870$$

"258 is close to 250. $250 \times 15 = (250 \times 10) + (250 \times 5)$ = 2500 + 1250 = 37503870 is close to 3750. So, my answer is reasonable." Expresses a quotient with or without a remainder according to context

There are 114 students going on field trip.
Each bus holds 9 students.
How many buses are needed?

 $114 \div 9 = 12 \text{ R6}$ "Since 6 students cannot be left behind, 13 buses are needed."

Creates and solves multiplication and division problems flexibly using a variety of strategies

5 elephants share 748 kg of food. How much food does each elephant get?

748 ÷ 5 =
$$(500 \div 5) + (200 \div 5) + (45 \div 5) + (3 \div 5)$$

= 100 + 40 + 9 + $(3 \div 5)$
= 149 R3, or 149 $\frac{3}{5}$ or 149 $\frac{6}{10}$, or 149.6
Each elephant got 149.6 kg of food.

Observations/Documentation