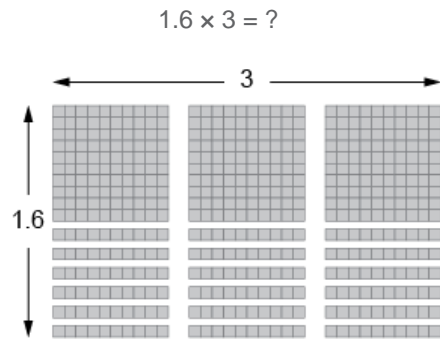


Activity 22 Assessment

Multiplying Decimals by 1-Digit Numbers

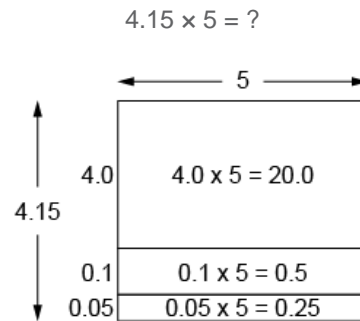
Multiplying and Dividing Decimals by 1-Digit Numbers

Models multiplication and division situations concretely and pictorially.



"I used Base Ten Blocks to make an array with length 3 and width 1.6. I then counted the blocks to get 4.8".

Uses models and strategies to solve multiplication and division situations.



"I used an area model:
 $4 \times 5 = 20$;
 1 tenth $\times 5 = 5$ tenths, or 0.5;
 5 hundredths $\times 5 = 25$ hundredths, or 0.25;
 $20.0 + 0.5 + 0.25 = 20.75$."

Decomposes numbers to use distributive property and partial products to multiply.

$4.15 \times 5 = ?$

$$\begin{aligned}
 4.15 \times 5 &= (4.0 + 0.1 + 0.05) \times 5 \\
 &= 4.0 \times 5 + 0.1 \times 5 + 0.05 \times 5 \\
 &= 20.0 + 0.5 + 0.25 \\
 &= 20.75
 \end{aligned}$$

Observations/Documentation

Activity 22 Assessment

Multiplying Decimals by 1-Digit Numbers

Multiplying and Dividing Decimals by 1-Digit Numbers (cont'd)

Decomposes numbers to use partial quotients to divide.

$$21.25 \div 5 = ?$$

$$\begin{array}{r} 5 \overline{) 2125} \\ - 2000 \\ \hline 125 \\ - 100 \\ \hline 25 \\ - 25 \\ \hline 0 \end{array} \quad \begin{array}{l} 400 \text{ groups of } 5 \\ 20 \text{ groups of } 5 \\ 5 \text{ groups of } 5 \\ \hline 425 \end{array}$$

"I used partial quotients to divide as whole numbers, then estimated to place the decimal point. 21.25 is about 20.

$$20 \div 5 = 4$$

So, I placed the decimal point so 425 is close to 4: 4.25."

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

$$38.22 \div 3 = 12.74$$

"I used estimation to check. 38 is close to 39 and $39 \div 3 = 13$. Since 12.74 is close to 13, my answer is reasonable."

Solves multiplication and division problems flexibly using a variety of strategies.

A bus travelled 446.5 km in 5 h, with no stops. On average, how far did the bus travel in 1 h?

"I divided as I would whole numbers, then used estimation to place the decimal point. 446.5 is about 450, and $450 \div 5 = 90$. I placed the decimal point so that 893 is close to 90: 89.3."

$$\begin{array}{r} 893 \\ 5 \overline{) 4465} \end{array}$$

Observations/Documentation