

Lesson 20 Assessment

Applying the Order of Operations with Decimals

Applying the Order of Operations with Decimals

Uses a variety of strategies to evaluate decimal expressions with one operation

$$2.5 \times 0.6$$

I used partial products.
 $2 \times 0.6 = 1.2$
 $0.5 \times 0.6 = 0.3$

$$\text{So, } 2.5 \times 0.6 = 1.2 + 0.3 = 1.5$$

Applies the order of operations to decimal expressions with more than one operation

$$2.5 \times 0.6 + 1.4 \div 0.2$$

There are no brackets, so multiply and divide, in order, from left to right.

$$\begin{aligned} 2.5 \times 0.6 &= 1.5 \\ 1.4 \div 0.2 &= 7 \end{aligned}$$

$$\text{Then, add: } 1.5 + 7 = 8.5$$

Uses the order of operations to solve multi-step problems

If a small smoothie costs \$4.75 and large smoothie costs \$7.25, how much would 5 small smoothies and 2 large smoothies cost?

$$\begin{aligned} \text{The total cost would be:} \\ 5 \times 4.75 + 2 \times 7.25. \end{aligned}$$

$$\begin{aligned} \text{I applied the order of operations.} \\ 5 \times 4.75 &= 23.75 \\ 2 \times 7.25 &= 14.5 \\ 23.75 + 14.5 &= 38.25 \end{aligned}$$

The total cost would be \$38.25.

Applies properties of operations to analyze a multi-step problem

Put brackets in the expression to get the greatest answer.

$$3 \times 2.8 + 6.4 \div 4$$

Division by 4 will make the answer smaller. So, I need to multiply by a larger number.

$$\begin{aligned} \text{Try } 3 \times (2.8 + 6.4 \div 4). \\ 3 \times (2.8 + 1.6) &= 3 \times 4.4 \\ &= 13.2 \end{aligned}$$

Observations/Documentation

--	--	--	--