

Sample Student Work

Enough Flour?

1. Bill is making 22 small pizzas for a party. He has 16 cups of flour. Each pizza crust takes $\frac{3}{4}$ cup of flour. Does he have enough flour?

$$16 \div \frac{3}{4} = 21\frac{1}{3} \text{ cups of flour}$$

$$\frac{16}{1} \times \frac{4}{3} = \frac{64}{3} \rightarrow 21\frac{1}{3}$$

$$\frac{3}{4} \times 4 = \frac{12}{12} \rightarrow 1$$

$$\begin{array}{r} 2 \\ 3 \overline{) 64} \\ \underline{- 60} \\ 04 \\ \underline{- 03} \\ 1 \end{array} \quad \begin{array}{l} 3 \times 20 \\ 3 \times 1 \end{array}$$

Bill does not have enough flour to make his pizzas because he has 16 cups of flour and each pizza uses $\frac{3}{4}$ cup. The problem was $16 \div \frac{3}{4}$. The product was $21\frac{1}{3}$ which is not enough flour to make 22 pizzas.

1. Bill is making 22 small pizzas for a party. He has 16 cups of flour. Each pizza crust takes $\frac{3}{4}$ cup of flour. Does he have enough flour?

NO, he has $\frac{1}{4}$ less than he needs

$$22 \times \frac{3}{4} = \frac{66}{4} \times \frac{3}{3} = \frac{198}{12}$$

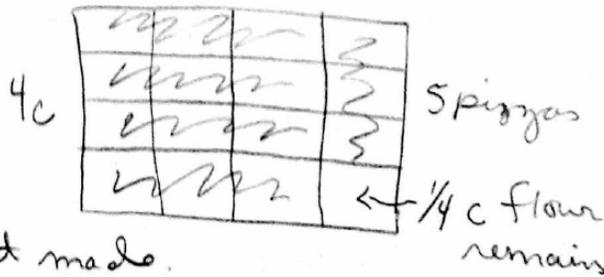
$$\frac{33}{2}$$

$$\begin{array}{r} 15 \\ 2 \overline{) 33} \\ \underline{- 30} \\ 32 \\ \underline{- 32} \\ 0 \end{array} \quad \begin{array}{l} 16 \\ 16 \end{array}$$

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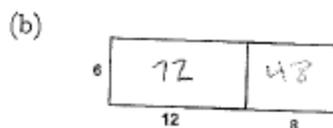
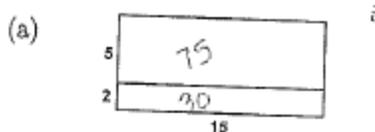
8 pizzas \Rightarrow 12c = 16 pizzas



Only 21 pizzas get made.

Area and Distributive Property

1. Write equivalent expressions to show two different ways to find the area of each rectangle. Use the ideas of the Distributive Property.



1. $(5 \times 15) + (2 \times 15) = 105$ 1. $(6 \times 12) + (6 \times 8) = 120$
 2. $15(5 + 2) = 105$ 2. $6(12 + 8) = 120$

$$\begin{array}{r} 315 \\ \times 2 \\ \hline 630 \\ \\ \hline 630 \\ \hline 630 \\ \hline 1050 \end{array}$$

$$\begin{array}{r} 12 \quad 72 \\ \times 6 \quad 72 \\ \hline 72 \quad 432 \end{array}$$

2. Without doing any calculations, determine whether each number sentence is true. Explain. Then check your answer.

(a) $50 \times 432 = (50 \times 400) + (50 \times 32)$

Yes, they are the same. It is just breaking the

$$\begin{array}{r} 432 \\ \times 50 \\ \hline 21600 \end{array}$$

$$21,600$$

$$21,600$$

$$\begin{array}{r} 400 \quad 50 \\ \times 50 \quad \times 32 \\ \hline 20000 \quad 1600 \\ \hline 20000 \quad 1600 \end{array}$$

problem up.

(b) $50 \times 368 = (50 \times 400) - (50 \times 32)$

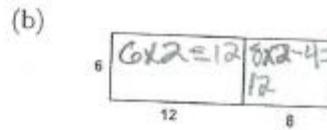
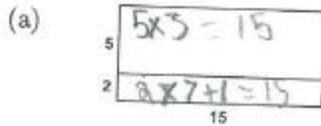
No, they aren't the same because 32 isn't half of 68.

$$\begin{array}{r} 368 \\ \times 50 \\ \hline 18400 \end{array}$$

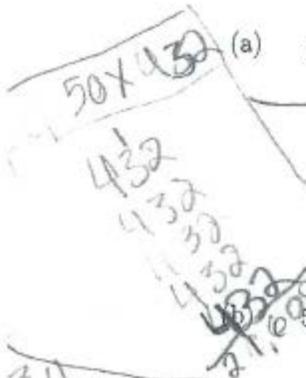
$$\begin{array}{r} 400 \quad 50 \\ \times 50 \quad \times 32 \\ \hline 20,000 \quad 1,600 \\ - 16,000 \quad 1,600 \\ \hline 4,000 \quad 16,000 \end{array}$$

$$18,400 \quad 4,000$$

1. Write equivalent expressions to show two different ways to find the area of each rectangle. Use the ideas of the Distributive Property.



2. Without doing any calculations, determine whether each number sentence is true. Explain. Then check your answer.



(a) $50 \times 432 = (50 \times 400) + (50 \times 32)$
 ~~$20,000 = (20,000) + (1,600)$~~

yes because I did it and check it with calculator.

$50 \times 368 = (50 \times 400) - (50 \times 32)$
 $18,400 = 20,000 - 1,600$



No it is not true be I checked it with calculator. And its the same as the other one.

