

PRACTICE: CC.6.NS.3

Name Key Date \_\_\_\_\_

How About A Little More Multiplying...

**REASONING** Without multiplying, how many decimal places does  $3.4^2$  have?  $3.4^3$ ?  $3.4^4$ ? Explain your reasoning.

$3.4^3$  Has 3 decimal places  
 $3.4^4$  Has 4 decimal places  

$$\begin{array}{r} 3.4 \\ \times 3.4 \\ \hline \end{array}$$
  
 $3.4 \cdot 3.4$  2 decimal places

**Geometry** A rectangular painting has an area of 9.52 square feet.

a. Draw three different ways in which this can happen

$2 \text{ ft} \times 4.76 \text{ ft}$   
 $4 \text{ ft} \times 2.38 \text{ ft}$   
 $7 \text{ ft} \times 1.36 \text{ ft}$

b. The cost of a frame depends on the perimeter of a painting. Which of your drawings from part (a) is the least expensive to frame? Explain your reasoning.

$4 + 9.52 = 13.52$   
 $8 + 4.76 = 12.76 \text{ ft}$   
 $14 + 2.72 = 16.72$

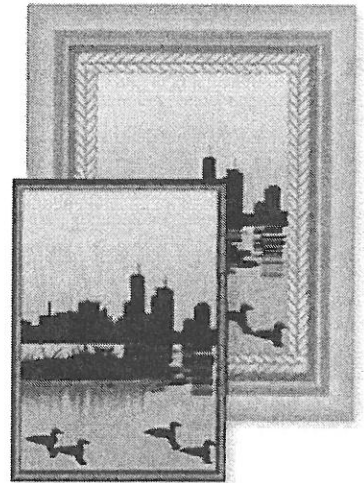
$4 \text{ ft} \times 2.38 \text{ ft}$

c. The thin black framing costs \$1 per foot. The fancy framing costs \$5 per foot. Will the fancy framing cost five times as much as the black framing? Explain why or why not.

Yes!  
 $\$1 : \$12.76$   
 $\$5 : 12.76 \times 5$



Perimeter P=12.76



Answers vary.