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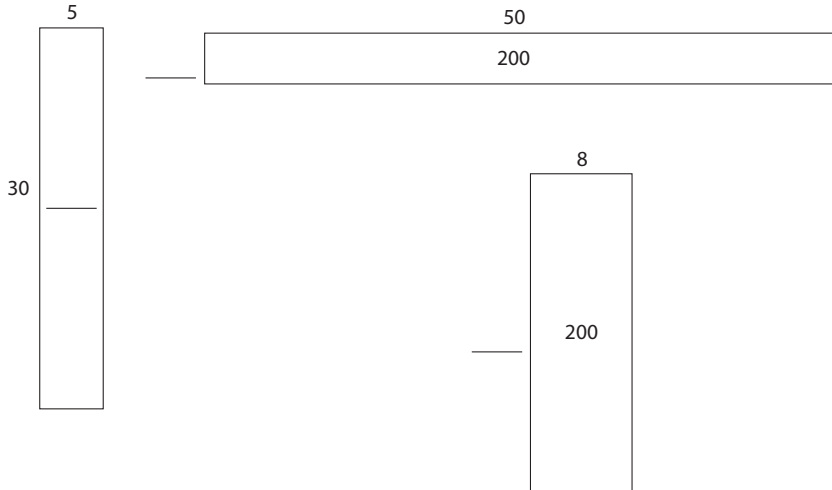
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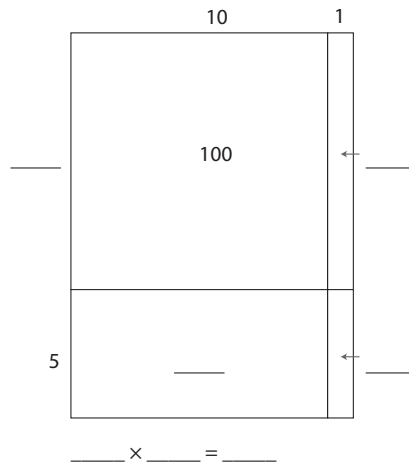
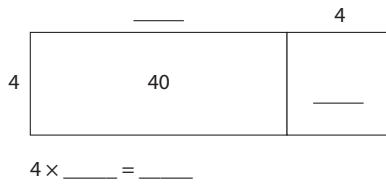
## Unit 2 Pre-Assessment page 1 of 4

**1** Pablo says there are 3 tens in 230. Hunter says there are 23 tens in 230. Their teacher says they're both right. How can that be so? Explain.

**2** Fill in the blanks.



**3** Fill in the blanks and complete the equations for each array.



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**Unit 2 Pre-Assessment** page 2 of 4**4** Fill in the blanks in the ratio table.

<b>Number of Folders</b>	8		32			80	
<b>Number of Students</b>	1	2		5	9		20

**5** For each of the story problems a, b, and c, show your thinking with numbers, labeled sketches, or words. Then write an equation that represents the problem, and give the answer labeled with the correct units.

- a** Michelle saved 4 times as much money as her brother, Sam. He saved \$40. How much money did Michelle save?

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 Equation

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 Answer, labeled with correct units

- b** Kendra earns money washing windows. She makes 25 cents for each window she washes. If she washes 9 windows, how much money does she make?

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 Equation

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 Answer, labeled with correct units

- c** One day, Kendra and her friend Amy washed windows together. They earned \$25 and split it evenly. How much money did they each get?

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 Equation

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 Answer, labeled with correct units
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- 6** Carter also washes windows. He charges 10 cents for small windows and 25 cents for large windows.
- a** If Carter washes 13 small windows and 18 big windows, how much money does he make? Show all your work.

- b** Which equation best represents this problem? (Note:  $m$  stands for the money Carter makes)
- $10 + 25 + 13 + 18 = m$
- $(10 \times 13) + (25 \times 18) = m$
- $(10 \times 25) + (13 \times 18) = m$
- $(25 - 10) \times (18 - 13) = m$

- 7** I have 270 marbles. Jake said, “You have 3 times as many marbles as I do!” Which equation could represent this situation? (Note:  $j$  stands for Jake’s marbles.)

- $270 \times 3 = j$         $3 \times 270 = j$         $3 \times j = 270$         $270 \times j = 3$

- 8** Which of these numbers is prime?

- 17       21       27       34

- 9** Fill in the blanks.

$$\begin{array}{r} 12 \\ \times 16 \\ \hline \square \end{array}$$

$$\begin{array}{r} 100 \\ \times \square \\ \hline 400 \end{array}$$

$$\begin{array}{r} 50 \\ \times \square \\ \hline 250 \end{array}$$

$$\begin{array}{r} 20 \\ \times 6 \\ \hline \square \end{array}$$

$$\begin{array}{r} 30 \\ \times \square \\ \hline 120 \end{array}$$

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**Unit 2 Pre-Assessment** page 4 of 4**10** True or False?

**a**  $30 \times 9 = 9 \times (3 + 10)$  \_\_\_\_\_

**b**  $16 \times 18 = (16 \times 10) + (16 \times 8)$  \_\_\_\_\_

**c**  $3 \times 300 = (3 \times 3) \times 100$  \_\_\_\_\_

**d**  $21 \div 2 = 11 \text{ R}1$  \_\_\_\_\_

**11** Fill in the blanks.

$15 \times 10 = (\underline{\quad} \times 10) + (5 \times 10)$

$(29 \times 30) = (20 \times 30) + (\underline{\quad} \times 30)$

**12** Sara was cleaning her room. She found 17 tiny toy cars and decided to give them to her 2 brothers.**a** Sara divided the 17 tiny toy cars evenly between the 2 boys. Which equation shows how things worked out?

$17 \div 2 = 8 \text{ R}1$

$17 \div 2 = \$8.50$

$17 \div 2 = 8 \frac{1}{2}$

**b** Explain your choice. Why did you choose that equation instead of one of the other two?