

WHOLE NUMBER MULTIPLICATION AND DIVISION (NBT1)

Essentials Pre-Assessment **Answer Key**

1. Grace multiplied $7 \bullet 9$. Explain her strategy.

$$7(10) = 70 \rightarrow 7(1) = 7 \rightarrow 70 - 7 = 63 \rightarrow 7 \times 9 = 63$$

She multiplied 7 by 10 and 7 by 1, then subtracted the products. This illustrates the distributive property: $7(10 - 1) = 7(10) - 7(1)$

2. Find each product.

a. $6 \bullet 8$ 48	b. $60 \bullet 8$ 480	c. $60 \bullet 80$ 4,800	d. $80 \bullet 6$ 480
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3. Multiply 18(121) using an area model.

2,178

4. Divide 767 by 13 using the chunking method.

59

5. Compute each product using the standard algorithm.

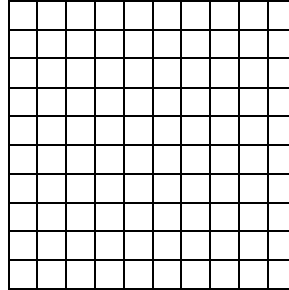
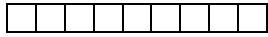
a. 19×85 1,615	b. $5,670 \div 35$ 162
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DECIMAL CONCEPTS (NBT2)

Essentials Pre-Assessment

Answer Key

1. For each base-10 block picture, these are a small square, a stick, and a big square.



Write the shaded portion for this stick:



	If a stick is one whole	If a big square is one whole
As a fraction	$\frac{7}{10}$	$\frac{7}{100}$
As a decimal	0.7	0.07
In words	Seven tenths	Seven hundredths

2. Benji and Ramon both shaded parts of a big square. Benji shaded 63 squares. Ramon shaded 7 columns. Who shaded the greater amount? Explain using fractions, decimals and words.

Benji shaded $\frac{63}{100} = 0.63 =$ sixty-three hundredths

Ramon shaded $\frac{70}{100} = .70 =$ seventy hundredths

3. Label each tick mark using whole numbers or decimals

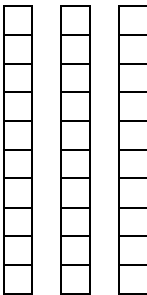
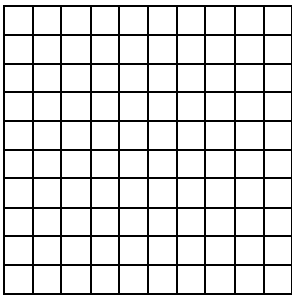


4. Write each number in two ways.

	One-fourth	Three-fifths
As a fraction	$\frac{1}{4}$	$\frac{3}{5}$
As a decimal	0.25	0.6

DECIMAL OPERATIONS (NBT3)
Essentials Pre-Assessment

Answer Key

1. Add. $14.57 + 9.8$ 24.37	2. Subtract. $45.93 - 3.9$ 42.03
3. Each stick is equal to one whole. Use them to multiply 3×0.4 . 	4. The big square is equal to one whole. Use it to multiply 0.3×0.4 . 
5. Multiply. 2.37×5.4 12.798	6. Divide. $14.04 \div 2.6$ 5.4