

Study Guide: Multi-Digit Division, Multi-Step

Name: _____ # _____

Expressions, and Measurement Conversion

Date: _____

Module 2: End of Module Assessment Study Guide

5.OA.1: Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.

5.OA.2: Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

5.NBT.2: Explain patterns in zeros and decimal placement of the product when \times or \div a number by powers of 10. Use whole-number exponents to denote powers of 10.

5.NBT.5: Fluently multiply multi-digit whole numbers (up to three-digit by four-digit factors) using appropriate strategies and algorithms.

5.NBT.6: Use equations, rectangular arrays, and/or area models to divide 4-digit dividends by 2 digit divisors with partial quotients/reminders and recognize the connection to multiplication.

5.NBT.7: $+$, \times , \div decimals to hundredths, using concrete models/drawings/strategies using place value and operation understanding; check reasonableness using estimation strategies.

5.MD.1: Convert larger measurement units to a smaller measurement unit & use to solve multi-step real world problems involving distances, intervals of time, liquid volumes, masses of objects, and money.

1. Complete the chart.

5.OA.1 & 5.OA.2

40 times the sum of 17 and 23	a.	b.
c.	$(1,000 - 750) \div 25$	d.
the sum of 3 elevens and 17 elevens	e.	f.

2. Express the missing divisors using a power of 10. Explain using a place value chart.

5.NBT.2

a. $8.7 \div \underline{\hspace{2cm}} = 0.087$

b. $2,730 \div \underline{\hspace{2cm}} = 2.73$

3. Use mental math to estimate the quotients. You must include the estimated dividend, divisor, and quotient for each.

5.NBT.7

a. $543 \div 65$

$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

b. $1,975 \div 62$

$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

c. $17.11 \div 18$

$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

d. $24.65 \div 57$

$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4. A rectangular yard has an area of 2,262 square meters and a width of 29 meters. What is the length?

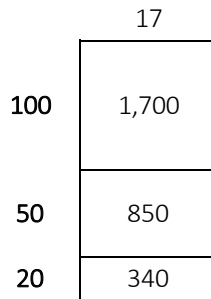
5.NBT.6

5. Write the following expression in word form: $8 + 15 \times (14 - 8)$

5.OA.2

6. What division problem does the following area model represent?

5.NBT.6



7. Describe in words what an accurate array model would look like for the division problem $171 \div 19$ (hint: use terms such as "objects" & "rows" in your description).

5.NBT.6

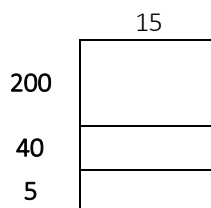
8. Which expression can be simplified to find the quotient of $5,375 \div 15$?

5.NBT.6

- A. $(5,000 \div 15) + (70 \div 15) + (5 \div 15)$
- B. $(5,000 \div 15) + (300 \div 15) + (75 \div 15)$
- C. $(500 \div 15) + (30 \div 10) + (75 \div 5)$
- D. $(500 \div 15) + (30 \div 15) + (75 \div 15)$

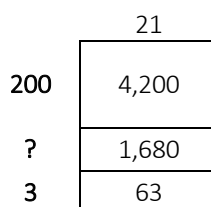
9. What is the dividend represented by the area model below?

5.NBT.6



10. What is the missing value in the area model below? What dividend is represented?

5.NBT.6



- 11.** 1.6 liters of cold medicine is sold in one month. If the total amount paid for the cold medicine was \$8,000, how much does each milliliter cost?
5.MD.1

- 12.** What is a reasonable estimate for $453.28 \div 63$?
5.NBT.7

- 13.** Fill in the blanks about the division problem below:
5.NBT.6

$$8,525 \div 25 = (8,000 + \underline{\hspace{2cm}} + 20 + 5) \div 25$$

The missing value is _____ and the quotient is _____.

- 14.** Find the values of each expression below.
5.NBT.2

A. $564 \div 10^2 =$

B. $564 \times 0.1 =$

- 15.** Which expression(s) has (have) a value of 50? Select all that apply.
5.OA.1

A. $8 + 2 \times (19 - 14)$

B. $(8 + 2) \times (19 - 14)$

C. $2 \times (8 \times 4 + 18) - 20$

D. $(2 \times 8) \times (2 + 1) - 10$

E. $(9 \times 25) - (8 \times 25)$

F. $(9 \times 25) - (7 \times 25)$

- 16.** Gibsons has 170 donuts. If they sell the donuts in boxes with a dozen donuts in each box, what is the *maximum* number of boxes they can sell?
5.NBT.6

- 17.** The art gallery has a painting that is 57 inches long and sculpture that is 4 feet 8 inches long.
5.MD.1 Which is longer and by how much?

- 18.** The weight of 43 identical badges is 224.46 grams total. What is the weight of each marble?
5.MD.1

- 19.** What is the quotient of $7,315 \div 35$?
5.NBT.6

- 20.** A coach prepared 4 drink dispensers before a game. Each dispenser held 2 liters of sports drink. If all 4 were empty after the game and each glass contains 500 mL, how many glasses were filled?
5.MD.1

- 21.** A store is ordering shelves that come in boxes with 32 shelves in each box. If they order 65 boxes, how many shelves the store receive?
5.NBT.5