Name_____ Date_____ Period_____

LESSON 2-7 · SESSION 2 · PRACTICE · FORM B

Dividing by a Decimal

Learning target – I can divide by a decimal by making the divisor a whole number first. · 6.NS.B.3

REMEMBER

- Make the divisor whole: multiply **both** numbers by the **same** power of 10.
- Count the divisor's decimal places. One place: × 10. Two places: × 100. Example: 5 ÷ 0.25 = 500 ÷ 25 = 20.
- Dividing by a number less than 1 gives a quotient **greater** than the dividend.

WORKED EXAMPLE

How many 0.7-liter bottles can be filled from 8.4 liters?

Step 1 Write 8.4 ÷ 0.7.

Step 2 Multiply both by 10: 0.7 × 10 = 7 and 8.4 × 10 = 84.

Step 3 84 ÷ 7 = 12. Check: 12 × 0.7 = 8.4.

Answer **12 bottles**

WORDS **divisor** *(divisor)* · **equivalent division** *(división equivalente)* · **power of ten** *(potencia de diez)*

PRACTICE

show your work · label units

1. Rewrite with a whole-number divisor. Then divide.

a. 2.4 ÷ 0.15 = _____ **b.** 9.75 ÷ 0.25 = _____ **c.** 1.92 ÷ 0.08 = _____

d. 22.5 ÷ 1.5 = _____ **e.** 0.54 ÷ 0.09 = _____ **f.** 8.8 ÷ 0.4 = _____

2. **Greenhouse Pours.** A greenhouse pours 8.4 liters of water into 0.7-liter pots. Later it pours 5.6 liters into 0.8-liter trays.

a. Write the whole-number problem. How many pots? _____

b. Write the whole-number problem. How many trays? _____

Show your work.

3. **Paint Cans.** A painter fills 1.1-liter cans from 14.3 liters of paint. How many cans are filled?

Hint *Multiply both numbers by 10.*

Show your work.

Answer_____ cans

4. **One-Sided Slide.** For 7.2 ÷ 0.9, Theo divided 7.2 by 9. What did his shortcut do to the quotient? Find the correct answer.

Hint *Did Theo multiply both numbers by 10?*

Show your work.

Quotient_____

5. **Bagging Rice.** A store packs 30.6 kg of rice into bags that hold 1.8 kg each. How many bags?

Show your work.

Answer_____ bags

6. **Kite Tails.** A spool holds 11.2 m of string. Each kite tail uses 0.8 m. How many tails?

Show your work.

Answer_____ tails

7. **Too Few Slides.** For 4.2 ÷ 0.12, Mei moved the divisor's point two places but the dividend's point one place: 42 ÷ 12. Explain her mistake and find the correct quotient.

Hint *0.12 has two decimal places, so multiply both by 100.*

Show your work.

Quotient_____

8. **Paint Coverage.** A painter has 16.8 liters of paint. Each door takes 0.8 liter.

Hint *Bigger amount per door means fewer doors.*

a. How many doors can the painter cover? _____ doors

b. If each door took 1.2 liters, how many doors? _____ doors

c. Why does the number of doors drop? _____

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. **Malik's Work.** For 4.8 ÷ 0.6, Malik correctly rewrote the problem as 48 ÷ 6, then wrote his answer as 0.8. Explain the mistake and give the correct quotient.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. Find 4.5 ÷ 0.5.

A 0.9 **B** 2.25 **C** 90 **D** 9

11. Multiplying the divisor and the dividend by 10 makes a division that is –

A 10 times larger **B** 10 times smaller

C equivalent **D** impossible to solve

SELF-CHECK CODE *find your answer · copy its letter into that problem's box · spell a math word*

35 O	12 D	0.8 Q	17 I	13 V	1.3 X	7 I	14 S	21 R	3.5 Z

#2a	#2b	#3	#5	#6	#7	#8a

CHECK YOURSELF	□ I can do this on my own	□ I need a little help	□ I have a question about #___