Name_____ Date_____ Period_____

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

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. 14 ÷ 0.35 = _____ **b.** 37.2 ÷ 3.1 = _____ **c.** 12.6 ÷ 0.9 = _____

d. 5 ÷ 0.25 = _____ **e.** 8.4 ÷ 0.2 = _____ **f.** 6.5 ÷ 0.05 = _____

2. **Science Lab Pours.** A lab pours 7.2 liters of solution into 0.6-liter beakers. Later it pours 4.5 liters into 0.9-liter tubes.

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

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

Show your work.

3. **Paint Cans.** A painter fills 1.3-liter cans from 11.7 liters of paint. How many cans are filled?

Hint *Multiply both numbers by 10.*

Show your work.

Answer_____ cans

4. **One-Sided Slide.** For 6.3 ÷ 0.7, Alina divided 6.3 by 7. What did her shortcut do to the quotient? Find the correct answer.

Hint *Did Alina multiply both numbers by 10?*

Show your work.

Quotient_____

5. **Bagging Sugar.** A store packs 20.4 kg of sugar into bags that hold 1.2 kg each. How many bags?

Show your work.

Answer_____ bags

6. **Kite Tails.** A spool holds 9.1 m of string. Each kite tail uses 0.7 m. How many tails?

Show your work.

Answer_____ tails

7. **Too Few Slides.** For 3.6 ÷ 0.12, Yara moved the divisor's point two places but the dividend's point one place: 36 ÷ 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 12.6 liters of paint. Each door takes 0.6 liter.

Hint *Bigger amount per door means fewer doors.*

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

b. If each door took 0.9 liter, 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. **Oren's Work.** For 5.6 ÷ 0.8, Oren correctly rewrote the problem as 56 ÷ 8, then wrote his answer as 0.7. Explain the mistake and give the correct quotient.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. Find 7.2 ÷ 0.8.

A 0.9 **B** 9 **C** 90 **D** 5.76

11. To divide by 0.25, you first multiply both numbers by –

A 10 **B** 100 **C** 25 **D** 1,000

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

1.3	13	12	17	5	3	9	21	30	0.9
X	M	D	I	E	Z	C	L	A	Q

#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 #___