Lesson 2-7 · Session 1

Dividing a Decimal by a Whole Number

Name _____ Date _____ Period _____

Maryland Standard 6.NOS.3 · Learning target — I can divide a decimal by a whole number and place the decimal point correctly.
Show a model, calculation, or explanation. Answer every part and label units when needed.

Exercises 1–12 earn 1 point for a correct response and 1 for supporting work. Spiral Review and Test Practice earn 1 point each.

Learn from a model

REMEMBER

- Divide a decimal by a whole number the same way as whole number division — keep the decimal point lined up straight up in the quotient.
- Check your answer: quotient times divisor should equal the dividend.
- Watch out — a misplaced decimal point makes the answer ten times too big or too small.
- Check it — multiply your quotient by the divisor; you should get the dividend back.

WORKED EXAMPLE

Dividing a Decimal by a Whole Number A ribbon 82.2 meters long is cut into 4 equal pieces. How long is each piece?

Step 1 Write 82.2 inside the bracket with 4 outside. The divisor is already a whole number.

Step 2 Put the quotient's decimal point straight above the point in 82.2, then start dividing.

Step 3 Divide, multiply, subtract, bring down — one place-value column at a time.

Step 4 An amount is still left over, so annex a zero to 82.2 and keep dividing.

Answer Each piece is 20.55 meters long.

Practice

1. Find the quotient: 8.4 divided by 4 = _____

Answer _____

SHOW YOUR THINKING

2. Find the quotient: 13.5 divided by 5 = _____

Answer _____

SHOW YOUR THINKING

3. Four friends share a $9.60 pizza bill equally. How much does each friend pay? _____

Answer _____

SHOW YOUR THINKING

4. Find each quotient.

a. 6.9 ÷ 3 _____
b. 14.4 ÷ 6 _____
c. 25.5 ÷ 5 _____
d. 7.2 ÷ 8 _____
e. 48.6 ÷ 9 _____

Answer _____

SHOW YOUR THINKING

5. Trail Markers. A 32.5-kilometer trail is divided into 5 equal stretches. How long is one stretch?

Answer _____

SHOW YOUR THINKING

6. Class Notebooks. A teacher paid $43.68 for 12 identical notebooks. Find the cost of one notebook, then check your answer.

Answer _____

SHOW YOUR THINKING

7. Annexing a Zero. A board 17.4 feet long is cut into 8 equal pieces. Find the exact length of one piece and explain the step you used when an amount was left over.

Answer _____

EXPLAIN WITH MATHEMATICAL EVIDENCE

8. Placing the Point. Dividing 45.6 by 6, Camila wrote the quotient 0.76. Her digits are right. Explain where the decimal point belongs and why.

Answer _____

EXPLAIN WITH MATHEMATICAL EVIDENCE

9. Find 38.4 ÷ 6.

Answer _____ quotient

SHOW YOUR THINKING

10. Find 54.25 ÷ 5.

Answer _____ quotient

SHOW YOUR THINKING

11. Party Supplies. Eight identical gift bags cost $73.60 in total. Find the cost of one bag.

Answer _____ dollars

SHOW YOUR THINKING

12. Find the Mistake. Devin wrote 8.4 ÷ 4 = 21. Explain the mistake and give the correct quotient.

Answer _____ the mistake and the quotient

EXPLAIN WITH MATHEMATICAL EVIDENCE

Spiral review

13. From Lesson 2-6 Session 1. Find the median of 7, 9, 8, 10, 60.

Answer _____

SHOW YOUR THINKING

14. From Lesson 2-4 Session 1. Q3 is the median of which half?

Answer _____

SHOW YOUR THINKING

15. Grade 5. Find 16 × 25.

Answer _____

SHOW YOUR THINKING

Test practice

16. Find 12.6 ÷ 3.

□ A. 0.42	□ B. 4.2
□ C. 42	□ D. 37.8

17. Find 20.5 ÷ 5.

□ A. 0.41	□ B. 41
□ C. 4.1	□ D. 102.5

18. The number you divide by is the —

□ A. product	□ B. dividend
□ C. quotient	□ D. divisor

Check and revise

CHECK YOUR MATHEMATICS	HOW DID IT GO?
Multiply the quotient by the divisor to check the dividend. Every part answered / Work shown / Units labeled when needed	I can do this: Independently / With a hint / With help Question to revisit: _____

One correction or question I want to discuss: _____

Check one response against the data. State which measure or feature supports your answer.