Lesson 4-2 · Session 1

Fractions, Decimals, Percents

Name _____ Date _____ Period _____

Maryland Standard 6.AT.4 · Learning target — I can write the same value as a fraction, a decimal, and a percent.

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

- To change a fraction to a percent, first write it as a decimal, then move the decimal point 2 places right.
- To change a percent to a fraction, write it over 100 and simplify.
- Watch out — moving the decimal point the wrong way turns 0.35 into 3.5% instead of 35%.
- Check it — a value between 0 and 1 must give a percent between 0% and 100%.

WORKED EXAMPLE

Writing One Value Three Ways A survey found 7 out of 20 students walk to school. Write that as a fraction, a decimal, and a percent.

Step 1 Write the fraction, part over whole: 7/20

Step 2 Twenty times five makes one hundred, so multiply both terms by five.

Step 3 That gives thirty-five hundredths, written as the decimal 0.35

Step 4 Hundredths read straight across into percent form: 0.35 is 35%

Answer 7/20, 0.35, and 35% all name the very same amount.

Practice

1. Write 3/4 as a decimal and as a percent. Decimal _____ Percent _____

Answer _____

SHOW YOUR THINKING

2. Write 0.6 as a fraction (simplified) and as a percent.

Answer _____

SHOW YOUR THINKING

3. Write 85% as a decimal and as a simplified fraction.

Answer _____

SHOW YOUR THINKING

4. Write each fraction as a decimal and as a percent.

a. 1/2 = _____ = _____ %
b. 2/5 = _____ = _____ %
c. 7/25 = _____ = _____ %
d. 9/20 = _____ = _____ %
e. 3/10 = _____ = _____ %

Answer _____

SHOW YOUR THINKING

5. Write 0.72 as a percent and as a fraction in simplest form.

Answer _____

SHOW YOUR THINKING

6. Chess Matches. Keisha won 16 of her 20 chess matches. Write her wins as a fraction in simplest form, a decimal, and a percent.

Answer _____

SHOW YOUR THINKING

7. Snack Mix. A snack mix has 10 pretzels, 18 nuts, and 22 raisins. Find the percent of the mix that is raisins, then write that percent as a decimal.

Answer _____

SHOW YOUR THINKING

8. Andre wrote the decimal 0.5 as 5%. Explain his mistake, then write 0.5 correctly as a percent and as a fraction in simplest form.

Answer _____

EXPLAIN WITH MATHEMATICAL EVIDENCE

9. Write 9/20 as a decimal and a percent.

Answer _____ decimal and percent

SHOW YOUR THINKING

10. Write 0.72 as a percent and a fraction in lowest terms.

Answer _____ percent and fraction

SHOW YOUR THINKING

11. Three Forms. A class finished 16 of 25 projects. Write that value as a fraction, a decimal, and a percent.

Answer _____ all three forms

SHOW YOUR THINKING

12. Find the Mistake. Ben wrote 0.4 as 4%. Explain the mistake and give the correct percent.

Answer _____ the mistake and the percent

EXPLAIN WITH MATHEMATICAL EVIDENCE

Spiral review

13. From Lesson 4-1 Session 1. Write 11 out of 20 as a percent.

Answer _____

SHOW YOUR THINKING

14. From Lesson 3-7 Session 1. Convert 8.8 pounds to kilograms. (1 kg is about 2.2 lb)

Answer _____

SHOW YOUR THINKING

15. From Lesson 3-2 Session 1. A reader finishes 224 pages in 7 hours. Find the unit rate.

Answer _____

SHOW YOUR THINKING

Test practice

16. 0.05 written as a percent is —

□ A. 0.5%	□ B. 50%
□ C. 5%	□ D. 500%

17. 4/5 written as a percent is —

□ A. 20%	□ B. 45%
□ C. 54%	□ D. 80%

18. 90% written as a decimal is —

□ A. 0.9	□ B. 9.0
□ C. 0.09	□ D. 90

Check and revise

CHECK YOUR MATHEMATICS	HOW DID IT GO?
Decide whether the question asks for an estimate or an exact result. 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: _____

Identify the whole. Check your result against 0%, 50%, and 100% of that amount.