

Objectives:

- Students will divide positive integers from the multiplication table without remainders, as evidenced by them passing one-minute quizzes.
- Students will reduce fractions, as evidenced by them completing a warm-up worksheet where they do so.
- Students will divide by 100 by shifting the decimal point, as evidenced by them completing a warm-up worksheet where they do so.
- Students will convert percents to fractions and decimals, as evidenced by them completing a homework assignment where they do so.

Materials:

- Unit calendar transparency
- Minute Quiz 5-4
- Warm-up 5-4
- Notes #5-4 and Homework #5-4 (front and back)
- Notes #5-4 Teacher's Edition

Do Now:

- Park stuff
- Work on warm-up
- Get ready for minute quiz

Homework:

- Homework #5-4
- 7 hours of ALEKS due Today

Time	Activity
Before Bell	<p style="text-align: center;">AGENDA, DO NOW, AND WARM-UPS</p> <p>Write the agenda and the do now on the board. As students enter the classroom, shake their hands and direct them to follow the directions listed for the “do now.”</p>
10 min	<p style="text-align: center;">MINUTE QUIZ, WARM-UP, ATTENDANCE, AND HOMEWORK COLLECTION</p> <p>Minute Quiz and Warm-up When the bell rings, quickly go around and put the minute quiz on each student’s desk, face down. Then, start everyone on the quiz at the same time and give everyone one minute. Students should work on the warm-up when they’re done with the minute quiz. After the minute is over, have a student collect the minute quizzes and give them to the teacher’s aide (TA) to grade.</p> <p>Attendance and Collect Homework While students work on the warm-up, take attendance and have the TA collect homework & stamp homework checkers.</p>
5 min	<p style="text-align: center;">ANNOUNCEMENTS</p> <p>Explain to students that you have a couple announcements to make.</p> <p>ALEKS Ask students, <i>The first announcement has to do with ALEKS. This week, how many hours of ALEKS are due today?</i> Point to the homework assignment that indicates the answer. <i>[Seven.]</i></p> <p>Unit Overview <i>The second announcement is to describe what we’re doing today. Put the unit calendar transparency on the overhead. Last time, we used ratio and proportions to solve problems involving similar figures and scale drawings. Today, we will learn that percents are just a special kind of ratio, and we will learn how to convert between decimals to fractions and decimals.</i></p>
25 min	<p style="text-align: center;">LESSON: PERCENTS TO FRACTIONS AND DECIMALS</p> <p>Go through “Notes 5-4.” Afterwards, have the TA go around and stamp warm-up & notes checkers.</p>
35 min	<p style="text-align: center;">CLASSWORK & ALEKS</p> <p>Classwork</p>

Lesson 5-4 – Percents to Fractions and Decimals

	<p>Students must complete problem 5 on their homework assignment before working on ALEKS. This is to ensure that students will be able to do the rest of the problems before they leave class.</p> <p>ALEKS When students finish their classwork, they should work with ALEKS. Use this student work time to return graded homework.</p>
5 min	<p style="text-align: center;">CLEAN UP</p> <p>Students must check the laptops with the teacher or the TA before putting them away. After putting the laptops away, students should pack up, sit in their seats, and wait to be dismissed by the teacher (not by the bell). Make sure students push in their chairs as they leave.</p>

Solve the following division problems. You have exactly one minute!

$132 \div 11 =$

$80 \div 8 =$

$28 \div 7 =$

$36 \div 9 =$

$55 \div 11 =$

$30 \div 5 =$

$14 \div 7 =$

$18 \div 2 =$

$40 \div 5 =$

$18 \div 9 =$

$14 \div 7 =$

$132 \div 12 =$

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Solve the following division problems. You have exactly one minute!

$2 \div 2 =$

$11 \div 1 =$

$33 \div 11 =$

$33 \div 3 =$

$6 \div 6 =$

$24 \div 2 =$

$132 \div 11 =$

$44 \div 4 =$

$8 \div 2 =$

$8 \div 8 =$

$50 \div 5 =$

$10 \div 10 =$

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$10 \div 10 =$

Solve the following division problems. You have exactly one minute!

$54 \div 6 =$

$16 \div 4 =$

$42 \div 6 =$

$24 \div 8 =$

$99 \div 11 =$

$24 \div 12 =$

$4 \div 1 =$

$3 \div 1 =$

$30 \div 5 =$

$20 \div 4 =$

$72 \div 9 =$

$110 \div 11 =$

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$72 \div 9 =$

$110 \div 11 =$

Simplify the following fractions by reducing them.

Ex: $\frac{2}{6} = \frac{2}{2 \cdot 3} = \boxed{\frac{1}{3}}$

1. $\frac{2}{4}$

2. $\frac{5}{15}$

3. $\frac{10}{12}$

4. $\frac{4}{6}$

5. $\frac{3}{12}$

6. $\frac{4}{20}$

7. $\frac{6}{10}$

8. $\frac{6}{18}$

Dividing by 100 is the same as shifting the decimal point to the left by 2.

Ex: $2.3 \div 100 = 0.023$

1. $12.5 \div 100 =$

2. $15 \div 100 =$

3. $1.97 \div 100 =$

4. $2.18 \div 100 =$

5. $31.4 \div 100 =$

6. $2.71 \div 100 =$

7. $602 \div 100 =$

8. $51.48 \div 100 =$

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Introduction

- Recall a ratio is a comparison of two quantities.
- A percent is a special kind of ratio.
- A percent is a ratio that compares a number to 100.

We can use this definition to write percents as fractions and decimals.

Percent → Fraction

Ex: Write 5% as a fraction.

5% is a ratio of 5 to 100

We can write this as $\frac{5}{100} = \boxed{\frac{1}{20}}$

Ex: Write 125% as a fraction.

125% is a ratio of 125 to 100

We can write this as $\frac{125}{100} = \frac{5}{4} = \boxed{1\frac{1}{4}}$

Percent → Decimal

Ex: Write 1.5% as a decimal.

1.5% is a ratio of 1.5 to 100

We can write this as $\frac{1.5}{100}$

Divide by shifting the decimal point:

$1.5 \div 100 = 0.015$

Ex: Write 45% as a decimal.

45% is a ratio of 45 to 100

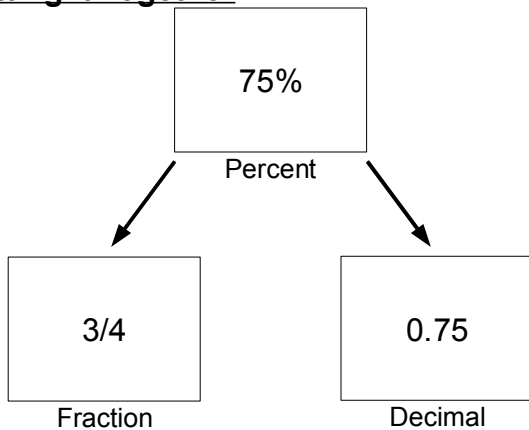
We can write this as $\frac{45}{100}$

Divide by shifting the decimal point:

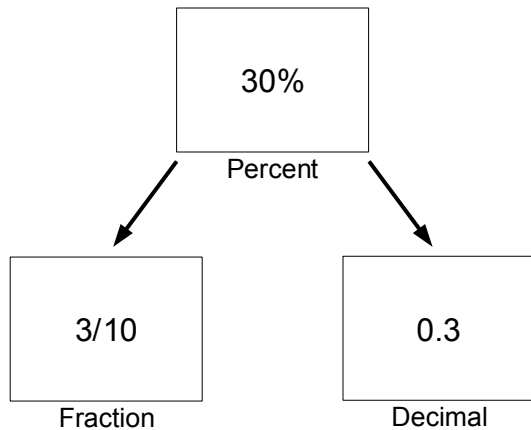
$45 \div 100 = .45$

Putting it Together

Ex:



Ex:



Introduction

- Recall a ratio is _____.
- A percent is _____.
- A percent is _____.

We can use this definition to write _____ as _____ and _____.

Percent → Fraction

Ex:

Ex:

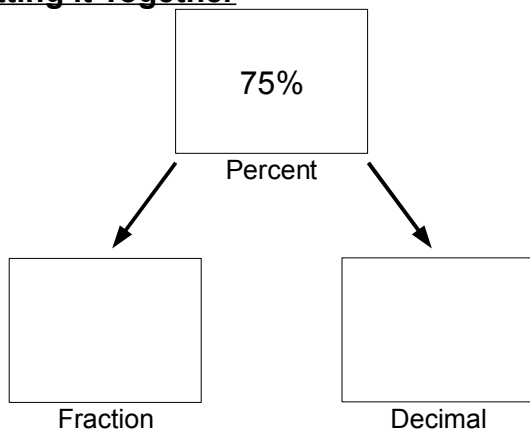
Percent → Decimal

Ex:

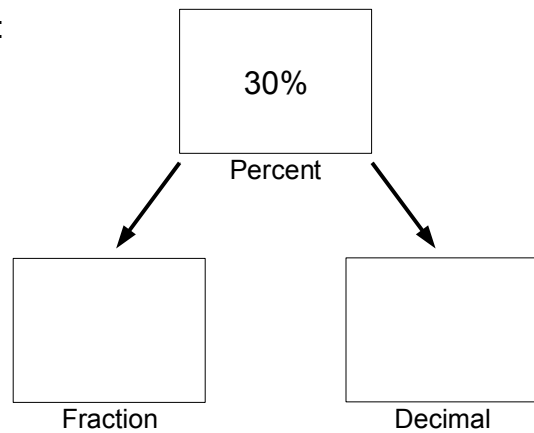
Ex:

Putting it Together

Ex:



Ex:



1. Write 28% as a fraction.

2. Write 220% as a decimal.

3. Write 72% as a fraction.

4. Write 105% as a decimal.

