

Objectives:

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

Materials:

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

Do Now:

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

Homework:

- Homework #5-5
- 8 hours of ALEKS due Friday

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 <i>Ask students, “The first announcement has to do with ALEKS. This week, how many hours of ALEKS are due this Friday?” Point to the homework assignment that indicates the answer. [Eight.] It’s just another hour each week.</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 learned how to write percents as fractions and decimals. Today, we’re doing the opposite. We’re starting with decimals and fractions and writing them as percents.</i></p>
30 min	<p style="text-align: center;">LESSON</p> <p>Go through “Notes 5-5.” Afterwards, have the TA go around and stamp warm-up & notes checkers.</p>
30 min	<p style="text-align: center;">CLASSWORK & ALEKS</p>

Lesson 5-5 – Decimals and Fractions to Percents

	<p>Classwork Students must complete problem 5 and 6 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!

$132 \div 11 =$

$80 \div 8 =$

$28 \div 7 =$

$36 \div 9 =$

$55 \div 11 =$

$30 \div 5 =$

$14 \div 7 =$

$18 \div 2 =$

$40 \div 5 =$

$18 \div 9 =$

$14 \div 7 =$

$132 \div 12 =$

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

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$80 \div 8 =$

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$14 \div 7 =$

$132 \div 12 =$

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

$2 \div 2 =$

$11 \div 1 =$

$33 \div 11 =$

$33 \div 3 =$

$6 \div 6 =$

$24 \div 2 =$

$132 \div 11 =$

$44 \div 4 =$

$8 \div 2 =$

$8 \div 8 =$

$50 \div 5 =$

$10 \div 10 =$

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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$11 \div 1 =$

$33 \div 11 =$

$33 \div 3 =$

$6 \div 6 =$

$24 \div 2 =$

$132 \div 11 =$

$44 \div 4 =$

$8 \div 2 =$

$8 \div 8 =$

$50 \div 5 =$

$10 \div 10 =$

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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$16 \div 4 =$

$42 \div 6 =$

$24 \div 8 =$

$99 \div 11 =$

$24 \div 12 =$

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$3 \div 1 =$

$30 \div 5 =$

$20 \div 4 =$

$72 \div 9 =$

$110 \div 11 =$

Multiplying by 100 is the same as shifting the decimal point to the right by 2.

Ex: $2.3 \cdot 100 = 230.$

1. $0.32 \cdot 100 =$

2. $1.92 \cdot 100 =$

3. $34.1 \cdot 100 =$

4. $49 \cdot 100 =$

5. $57.23 \cdot 100 =$

6. $0.023 \cdot 100 =$

7. $0.002 \cdot 100 =$

8. $1.2 \cdot 100 =$

Write each fraction as a decimal using division.

Ex: $\frac{4}{5} = 0.8$

1. $\frac{1}{4} =$ _____

2. $\frac{2}{10} =$ _____

$$\begin{array}{r} .8 \\ 5 \overline{)40} \\ \underline{-40} \\ 0 \end{array}$$

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2. $1.92 \cdot 100 =$

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$$\begin{array}{r} .8 \\ 5 \overline{)40} \\ \underline{-40} \\ 0 \end{array}$$

Introduction

Last time, we learned how to write percents as fractions and decimals.
Percent → Fraction Percent → Decimal

Today, we will do the opposite. We will write decimals and fractions as percents.
Decimal → Percent Fraction → Percent

Decimal → Percent

Last time, to write a percent as a decimal, we divided by 100.

Ex: $1.5\% = \frac{1.5}{100} = 1.5 \div 100 = \boxed{0.015}$

Today, to write a decimal as a percent, we multiply by 100.

Ex: Write 0.4 as a percent.

Multiply by shifting the decimal point.

$$0.4 \cdot 100 = \boxed{40\%}$$

Ex: Write 0.023 as a percent.

Multiply by shifting the decimal point.

$$0.023 \cdot 100 = \boxed{2.3\%}$$

Fraction → Percent

Ex: Write $\frac{5}{16}$ as a percent.

First, turn $\frac{5}{16}$ into a decimal.

$$\frac{5}{16} = 0.3125$$

Now, turn the decimal into a percent.

$$0.3125 \cdot 100 = \boxed{31.25\%}$$

Ex: Write $\frac{3}{11}$ as a percent.

First, turn $\frac{3}{11}$ into a decimal.

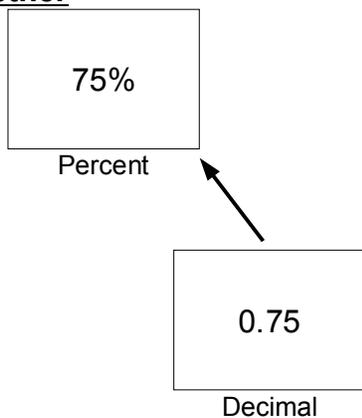
$$\frac{3}{11} = 0.2727\dots$$

Now, turn the decimal into a percent.

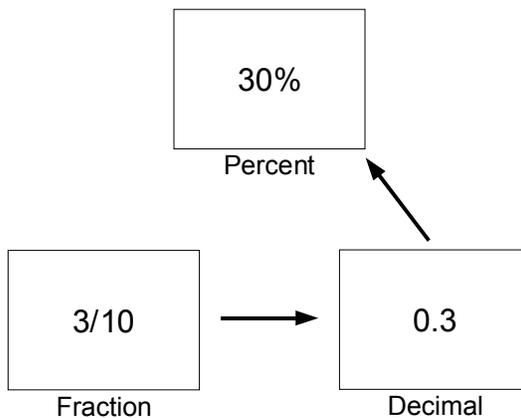
$$0.2727 \cdot 100 = 27.27 \approx \boxed{27\%}$$

Putting it Together

Ex:



Ex:



Introduction

Last time, we learned how to write percents as fractions and decimals.

_____ → _____ _____ → _____

Today, we will do the _____. We will write decimals and fractions as percents.

_____ → _____ _____ → _____

Decimal → Percent

Last time, to write a percent as a decimal, we _____ by _____.

Ex:

Today, to write a decimal as a percent, we _____ by _____.

Ex:

Ex:

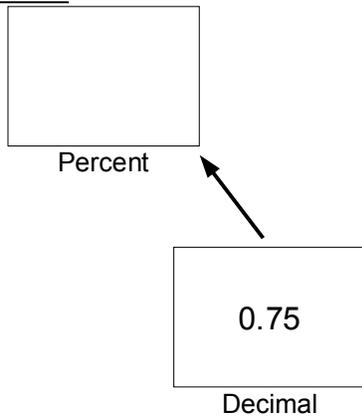
Fraction → Percent

Ex:

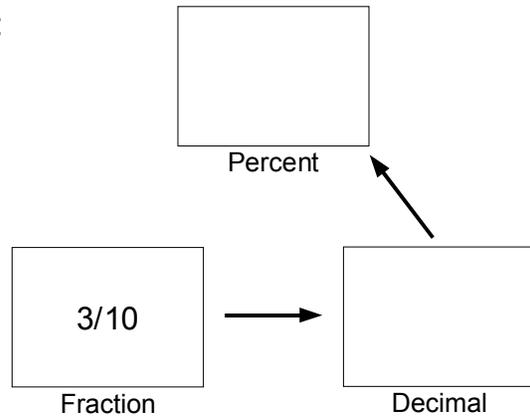
Ex:

Putting it Together

Ex:



Ex:



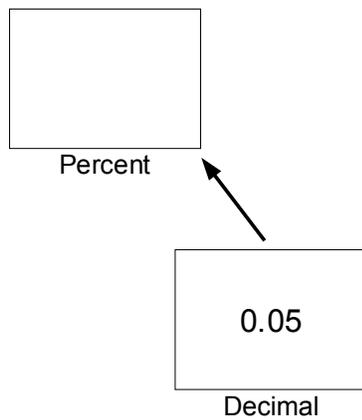
1. Write 0.24 as a percent.

2. Write $\frac{4}{5}$ as a percent.

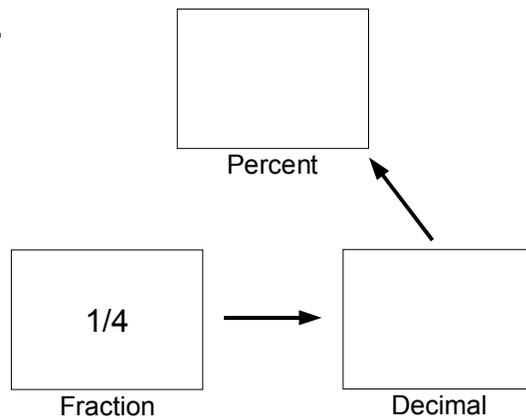
3. Write 2.5 as a percent.

4. Write $\frac{3}{8}$ as a percent.

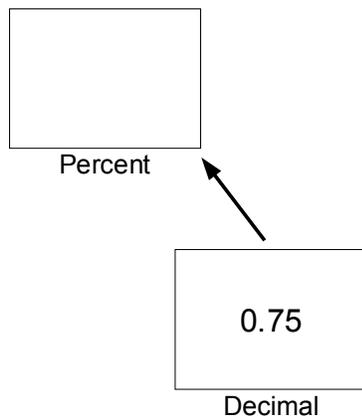
5.



6.



7.



8.

