

RATIONAL REVEAL

Today, you will be asked to convert rational numbers to decimals and decimals to rational numbers. Specifically, you will have three rational numbers that you will convert to decimals and three decimal values that you will convert to rational numbers. You will also be given a data set where you will need to express the results as decimals, fractions, and percents.

You will have 45 minutes to complete all parts of the assessment. There are three assessment problems on pages 3-4 in your booklet. You will work through them on your own.

The Teacher Scoring Rubric that will be used to evaluate your calculations and reasoning is shown below. Be sure to review the Exceeding Expectations column.

Teacher Scoring Rubric—Student Version			
Dimensions	Not Yet Meeting Expectations	Meeting Expectations	Exceeding Expectations
Concepts and Procedures	I can solve part of the problem, but I am confused in some places and have calculation mistakes.	I can solve the problem using strategies that make sense with few calculation mistakes.	I can solve the problem efficiently and accurately without any calculation mistakes.
Reasoning and Explaining	I can explain some of how I solved the problem.	I can explain the thinking I used to solve the problem using some math vocabulary.	I can explain the thinking I used to solve the problem using precise math vocabulary in a way that another person can easily understand my math reasoning.

You will have the remainder of this class as well to complete this assessment.

Do you have any questions about what you are expected to do?

You may now begin. Remember, you have 45 minutes to complete questions 1 and 2 as well as answer the reflection questions.

When time is up, please close your Student Booklet and pass it to your teacher.

STUDENT MATERIALS

PROBLEM 1 – RATIONAL REVEAL

Show how you convert the following to a decimal.

$\frac{3}{5}$	$\frac{3}{2}$	$\frac{7}{9}$
$\frac{3}{5} \times \frac{2}{2} = \frac{6}{10}$ $\frac{6}{10} = \frac{60}{100}$ $60/100 = 60\%$ $60 \div 100 = 0.6$ <u>0.6</u>	$\frac{2}{2} = 1$ whole $\frac{1}{2} = 50\% \text{ or } 0.5$ $1 \text{ whole} + 0.5$ $= 1.5$	$7 \div 9 = 0.\overline{7}$ <u>0.7</u> = 0.7777...

PROBLEM 2 – RATIONAL REVEAL

Show you convert the following to a fraction.

0.4	1.25	0. <u>6</u>
0.4 is 40% of 1, 40% or 10 is 4. $0.4 \times 10 = 4$ <u>$\frac{4}{10}$</u>	$0.25 = 25\%$ of $\frac{1}{4}$ whole, 25% = $\frac{1}{4}$, $1 = \frac{4}{4}$ $\frac{1}{4} + \frac{4}{4} = \frac{5}{4}$ <u>$\frac{5}{4}$</u>	$0.\overline{6} = \frac{1}{9}$ $\frac{1}{9} \times 6 = \frac{6}{9}$ $\frac{6}{9} = 0.\overline{6}$ <u>$\frac{6}{9}$</u>

PROBLEM 3 – RATIONAL REVEAL

A teacher surveyed their 200 students to find out their favorite after school snack.

- a. In the table below, express the results as a fraction, a decimal, and a percent of the total of 200 students.

Results from student choices	Fraction	Decimal	Percent
84 chips	$\frac{42}{100}$	0.42	42%
70 cookies	$\frac{35}{100}$	0.35	35%
46 fruits	$\frac{23}{100}$	0.23	23%

- b. When reporting out your findings to the class, which set of numbers (fractions, decimals, percents) would make the most sense to use? Why?

I think percents because it can be applied to any number of students instead of fractions for example which you have to multiply by a specific number to be applied.