Check when done	Math Assignments for this week
◯	15 total practice problems focused on the content focus for the week (problems can come from the Digits practice and Close-and-Checks **OR** from practice work done in the Khan Academy lessons – copied onto paper). **Must show ALL steps in getting to the solution**.
◯	30 Prodigy problems if possible – or, if no internet access, 20 student-created problems with their answers and work. If doing the student-created problems, these need to be mixed types of problems, focusing on the standards we have done this year. As an example, there should be division problems, fractions problems, decimal problems, and algebraic expressions and equations. Hint: Use your math notebook to get ideas about what sorts of problems to include, then make up some of your own. **Every step must be shown in your work**.
◯	One Mixed Review "quiz" – the goal of this quiz each week will be to help you know where you still need practice. I will make up the quiz each week and send it via your student email (I will also send it in the family email on Thursdays). The "Quiz" will frequently include at least one reflection question that may require that you play games that I will send in email.

Content Focus and Materials	Goals for the Practice	Tasks	Check-in and support opportunities	Turning in the Work
Ratios and Rates 1)Digits workbooks lessons 10-4, 10-5, 11-1, 11-2, 11-3 **OR** Khan Academy, 6ᵗʰ grade, ratio application and intro to rates _____ 2) Prodigy **OR** student created problems _____ 3) Mixed Review "Concept on a Page" notes	By the end of the week, students will: • Understand that ratios can be referred to/written in multiple ways, and be able to "convert" from one way to another (fractions to decimals or vice versa) • Use ratio relationships to solve problems involving unit rates	_____ 15 concept practice exercises Digits 10-4, 10-5 and 11-1, 11-2, 11-3, **OR** Khan Academy: Intro to Ratios, Equivalent Ratios, and Visualize Ratios (15 points) *if doing Khan Academy or Digits on-line practices, please copy the problems and your work and answers onto paper and then send in. _____30 correct Prodigy problems OR 30 review practice problems that you make up (these must illustrate practice of 6ᵗʰ grade work). *_Hard copy work must show the problem and each step in its solution._ (10 points) _____ Quiz – can be emailed or written. Please do it without notes. (15 points)	Video/phone office hours: Monday – Thursday: 9:00 AM – 10:30 AM or 4:45 PM – 5:15 PM Friday: 9-10:30 and 12:12:30 "Lunch with your Teachers" or Digits on line www.pearsonrealize.com User name is: IDnumbertusd Password is: digits56	Hard copy work may be delivered to Freiler according to the established calendar. On-line work is due no later than 2:30 PM Friday. Paper work may also be submitted via email (fmartin@tusd.net) by either scanning or taking a clear picture of the work and attaching to an email.

Critical Notes on a Page guide for Week 2 – Ratios and Rates: use these notes to help you do the practice problems in the Close and Checks or on Khan Academy.

What is new

- Ratio relationships can be written in fraction or decimal forms.
- One common type of ratio relationship is a rate. A rate is a comparison of two values that are measured in different units.
- A Unit rate is a rate for one unit (example: miles per gallon, cookies per person). In their fraction form, a unit rate will have a denominator of 1.
- A unit price is a type of unit rate that is specific to price of one item (example: price per pencil in a 12-pack of pencils). Unit rates are used to determine "best buy".
- Another common unit rate is "constant speed" – for example miles per hour.

What you already know

- All values can be expressed in more than one way. The form you use depends primarily on what you need to do with the value.
- Equivalent fractions represent the same relationship (*example 1/2 and 2/4 represent the same amount of a whole)*
- To create equivalent fractions, multiply or divide by a form of 1.

$$\frac{2}{3} \cdot \frac{2}{2} = \frac{4}{16}$$

- Equivalent ratios in their fraction form work the same way as equivalent fractions.
- All fractions can also be written in decimal form (to find the decimal, do the division problem – the decimal form of 2/5 is 2 divided by five). The fraction form of 0.2 is 2/10 (two-tenths) reduced to it's lowest terms: 1/5 (one-fifth).

> Like many values, ratios can be referred to in different forms: fraction, decimal, percent, words, or with a colon (3:4 *read three to four*).

Algorithm

To find a unit price, write the ratio with the total price in the numerator and the total number of items in the denominator. Then find an equivalent ratio with a denominator of 1 item by dividing.

$$\frac{\text{total price}}{\text{total number of items}} = \frac{\text{unit price}}{\text{1 item}}$$

÷ total number of items

÷ total number of items

Notice that you divide the total price by the total number of items to find the unit price. Since the denominator of the equivalent fraction is 1 item, you can write the unit price as a price per item.

Example $\frac{\$10}{1 \text{ book}} = \$10$ per book

Sample Problem

Tammy bought 3 widgets for $2.40, Jorge bought 5 widgets for $3.75. Who got the better price for widgets?

$$\frac{240}{3} = \frac{80}{1} \qquad\qquad \frac{375}{5} = \frac{75}{1}$$

Think: *How did I get from 3 to 1? Divide by 3! Whatever I do to the bottom I have to do to the top to keep the ratio balanced! AND THEN How did I get from 5 to 1? Divide by 5! Whatever I do to the bottom I have to do to the top.*

$2.40 ÷ 3 = $0.80 per widget
$3.75 ÷ 5 = $0.75 per widget   Jorge got the better deal!

Mixed Review Quiz #2 - SHOW ALL YOUR WORK

1.607 − 1.076 =	1456 ÷ 16	$2\frac{5}{6} \cdot 7\frac{4}{9}$
$16\frac{2}{3} - 3\frac{1}{6}$	If a rectangular garden area had an area of 34 square feet, and the length of one side was 5 feet, what is the length of the other side?	What is the greatest common factor of 24 and 46?
Write an algebraic expression to represent 13 more than an unknown number.	Simplify by combining like terms: 4y + 16x – 7 + 14 x + 3	Use commutative property to create an equivalent expression to: 3x+14+3y

Build a table to show how much school work you do on an average day.

Check when done	Math Assignments for this week
✅ (green checkmark)	**Math Assignments for this week**
○	15 total practice problems focused on the content focus for the week (problems can come from the Digits practice and Close-and-Checks **OR** from practice work done in the Khan Academy lessons – copied onto paper). **Must show ALL steps in getting to the solution**.
○	30 Prodigy problems if possible – or, if no internet access, 20 student-created problems with their answers and work. If doing the student-created problems, these need to be mixed types of problems, focusing on the standards we have done this year. As an example, there should be division problems, fractions problems, decimal problems, and algebraic expressions and equations. Hint: Use your math notebook to get ideas about what sorts of problems to include, then make up some of your own. **Every step must be shown in your work**.
○	One Mixed Review "quiz" – the goal of this quiz each week will be to help you know where you still need practice. I will make up the quiz each week and send it via your student email (I will also send it in the family email on Thursdays). The "Quiz" will frequently include at least one reflection question that may require that you play games that I will send in email.

Plotting rates and percentages

Content Focus and Materials	Goals for the Practice	Tasks Use check sheet above to track work	Check-in and support opportunities	Turning in the Work
Digits workbooks lessons 12-1, 12-2, 12-3, 12-4 **OR** Khan Academy, 6ᵗʰ grade, Intro to Percents, Visualize Ratios, Percent/Decimal/Fraction Conversations, Ratio application "Concept on a Page" notes	By the end of the week, students will: • Show the relationship between ratios in graphs and/or tables • Calculate and solve problems involving rates • Calculate percentages • Convert between the percentage, fraction and decimal forms of a quantity	15 concept practice exercises from Digits **OR** Khan Academy: (15 points) 30 correct Prodigy problems OR 30 review practice problems that you make up (these must illustrate practice of 6ᵗʰ grade work). *Hard copy work must show the problem and each step in its solution.* (10 points) Quiz – can be emailed or written. Please complete the quiz without notes. (15 points)	Video/phone office hours: Monday – Thursday: 9:00 AM – 10:30 AM or 4:45 PM – 5:15 PM Friday: 9-10:30 and 12:12:30 "Lunch with your Teachers" or **Digits** on line www.pearsonrealize.com User name is: IDnumbertusd Password is: digits56	All work for weeks 3 and 4 is due 5/15 or sooner. Hard copy work may be delivered to Freiler at any time during packet pick-up on 5/15. If possible please turn on-line work in as it is finished. Paper work may also be submitted via email (fmartin@tusd.net) by either scanning or taking a clear picture of the work and attaching to an email.

Critical Notes on a Page guide for Week 3 – Plotting Rates and intro to Percentages

- Ratios can be represented as points on a coordinate plane. Graphing ratios that are equivalent to a particular ratio forms a straight line that passes through the origin. The line contains all of the ratios that are equivalent.
- Proportional ratios are ratios that have the same relationship, they can be represented as equivalent ratios (they mean the same thing).
- A percent is a specialized ratio. It compares the number to 100. The symbol we use to represent percent is %. You can write a percent as a fraction with a denominator of 100 or in its decimal form.

- Ratios can be expressed in multiple ways, including as a fraction or decimal.
- One type of specialized ratio is a rate.
- Fractions can be converted into a decimal form by performing the division (numerator divided by denominator)
- Decimals can be converted into a fractional form by saying the name of the decimal and then writing the fraction version of what you said (0.2 = "two tenths" = 2/10)

A percent is a specialized type of ratio that shows a comparison to 100.

A table can be used to model proportional relation-ships:

X	1	3	4	6	12
y	3	9	12	18	36

This same information could be modeled on a graph (with x going horizontally and y going vertically like it does with a quadrant plane).

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

When comparing relationships, it can be easiest to show things in their percent forms to do the comparisons. For example, if at a soccer game, if 15 out of every 20 people in the stands were wearing sunglasses, and 18 out of every 25 people were wearing hats, and you wanted to know which was more popular, hats or sunglasses, you could determine the percent of people wearing each to make the comparison "fair".

If 15/20 of the people at the soccer game were wearing hats, we could make an equivalent fraction to determine the percent:

$$\frac{15}{20} \cdot \frac{5}{5} = \frac{75}{100} \text{ or } 75\%$$

OR

if 18/25 of the people at the soccer game were wearing sunglasses, we could use the decimal to determine the percent (18 ÷25 = .72 or 72%) SO we can tell that hats were more popular than sunglasses (75% compared to 72%)
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

When working with percentages, remember that the word "of" always means to multiply. So a problem like 35% of 70 would require you to multiply either the fraction or decimal form of 35% (35/100 or .35) times 70 to get the answer.

Mixed Review Quiz #3

1568.112 ÷ 6.72 =	567.3 x 306	$3\frac{2}{5} \div 1\frac{1}{4}$
X − 6.15 = 48.3	Find the area of a triangle with a base of 9 and a height of 7.2.	Draw a number line to show the possible solution(s) for x + 7 ≥ 19
You got 5 music downloads for $4.75. Your friend got 7 downloads for $5.95. Which of you got the better deal?	Simplify by combining like terms: 2x + 3z + 11x − 7 + y + 2z	Use distributive property to write an equivalent expression to: 6(x + 2)
Write 3 equivalent ratios to 3:7.		