

7th Grade Math Academic Readiness for 2020

Dear Center City Families,

In this challenging time, Center City staff is doing our best to ensure that your child is academically prepared to return to school in the Fall of 2020 with minimal learning loss. We have created this packet of academic materials that expand on foundational content that was covered this school year. Your child should complete this work to be ready for school once the academic year starts again in the fall.

This packet includes approximately four weeks of work. Between May 4th and 22nd, teachers will schedule virtual check-ins with students centered around the content of this packet. Please return the completed packet to your home campus no later than June 5, 2020.

Inside this packet, you will find:

- A table of contents that shows page numbers for each included activity
- A calendar that shows, day by day, which activities students should complete
- A copy of every activity and assignment that students will need to complete

Your child's teachers will be reaching out via text, email, phone, or Class Dojo to let you know when they are available and how they will monitor student progress on academic work through May 22nd.

There are a number of ways you can support the academic growth of your child during this time and throughout the summer:

- If possible, provide them with a quiet, comfortable place in which to complete their work.
- Please encourage them to read a book or magazine for pleasure. You can find books and resources online at <u>www.dclibrary.org</u>.
- Encourage children to keep a diary or journal for recording their thoughts, observations, or drawings.
- Get outside for an hour or two as weather permits.
- Reach out to the teacher if your child has any questions about the work in this packet.

We thank you for your patience and flexibility during these unprecedented times. If you have any questions or concerns, please do not hesitate to reach out to your campus team. In the meantime, we encourage everyone to stay safe and healthy by following the social distancing protocols that Mayor Bowser has put into place.

Sincerely,

The Center City Team



7th Grade Math Preparación Académica para 2020

Queridas Familias de Center City,

Durante este tiempo difícil, el personal de Center City está haciendo nuestro mejor para asegurar que su hijo está académicamente preparado para regresar a la escuela en el otoño de 2020 con una pérdida mínima de aprendizaje. Hemos creado este paquete de materiales académicos que amplían en el contenido fundacional que estaba cubierto este año escolar. Su hijo debe cumplir este trabajo para estar listo una vez el año académico empiece otra vez en el otoño.

Este paquete incluye aproximadamente cuatro semanas de trabajo. Entre el 4 y el 22 de mayo, los maestros van a programar conversaciones virtuales con los estudiantes para hablar sobre el contenido de este paquete. Por favor entreguen el paquete cumplido a su campus no más tarde que el 5 de junio, 2020.

Adentro este paquete, van a encontrar:

- Una tabla de contenido que muestra el número de página para cada actividad incluida
- Un calendario que muestra, día por día, cuáles actividades los estudiantes deben cumplir
- Una copia de cada actividad y trabajo que los estudiantes necesitan cumplir

Los maestros de su hijo van a estar en contacto por texto, correo electronico, telefono, o Class Dojo para notificarles cuando están disponibles y cómo van a monitorizar el progreso de su estudiante en el trabajo académico hasta el 22 de mayo.

Hay una variedad de maneras que usted puede apoyar el crecimiento académico de su hijo durante este tiempo y durante el verano:

- Si posible, proporcione su estudiante un lugar tranquilo y cómodo donde puede cumplir su trabajo.
- Por favor anímalo a leer un libro o revista para diversión. Puede encontrar libros y recursos en línea a <u>www.dclibrary.org</u>.
- Anime los niños a escribir un diario con sus pensamientos, observaciones, o dibujos.
- Salgan afuera por una hora o dos si el tiempo lo permite
- Hable con el maestro si su hijo tiene alguna pregunta sobre el trabajo en este paquete.

Les agradecemos su paciencia y flexibilidad durante esta época sin precedentes. Si tiene preguntas o preocupaciones, por favor no duden en ponerse en contacto con el equipo de su campus. Mientras tanto, animamos a todos a mantenerse seguros y saludables por seguir los protocolos de distanciamiento social que la alcaldesa Bowser ha implementado.

Sinceramente,

El Equipo de Center City



ከሠላምታ ጋር ፡

እንዲቆይ እናበረታታለን ።

በእነዚህ ባልተለመዱ 2ዜያት ስለትዕፖስትዎ እና እናመሰፖናለን ፡፡ ማናቸውም ጥያቄዎች ወይም ስጋቶች ካሉዎት እባክዎን ወደ የካምፓስ ቡድንዎን ለመ7ናኘት አያመንቱ ፡፡ ይሀ በእንዲሀ እንዳለ ከንቲባ ባውዘር ያስቀመጠቻቸውን ማህበራዊ ልዩነትን /ተራርቆ የመቆየት ፕሮቶኮሎችን በመከተል ሁስም ሰው ደህንነቱ የተጠበቀ እና ጤናማ ሆኖ

- ልጅዎ በዚህ ፓኬት ውስጥ ስላለው ሥራ ጥያቄ ካለዎት ከአስተማሪው ጋር ይ7ናኙ ።
- የአየር ሁኔታ እንደሚራቅድ ለአንድ ወይም ለሁስት ሰዓት ወደ ደጅ የዘዋቸው ይውጡ ፡፡
- ሀሳቦቻቸውን ፡ ምልከታዎቻቸውን ፣ ወይም ስዕሎቻቸውን አመንልበጥ ልጆች ማስታወሻ ደብተር ወይም ማስታወሻ እንዲይዙ ያበረታቷቸው።
- እባክዎን ለመደሰት መፅሃፍ ወይም መጽሔትን እንዲያነቡ ያበረታቷቸው ፡፡ መጽሐፍትን እና የተለያዩ ጽሁፎችን በ www.dclibrary.org ማግኘት ይችላሉ ።
- የሚቻል ከሆነ ሥራቸውን የሚያጠናቅቁበት ጸጥተኛና ምቹ የሆነ ቦታ አዘጋጁላቸው።

በአሁኑ ስአት እንዲሁም እስከ ሰመር ባለው 2ዜ የልጅዎን የትምሀርት እድ7ት ለመደ7ፍ በርካታ መን7ዶች አሉ፡

ጥረት ያደርጋሉ ።

በዚህ እሽግ ውስጥ የሚከተሉትን ያ7ኛሉ፡

የልጅዎ አስተማሪዎች እስከ ሜይ 22 ባለው ግዘ መቼ እንደማንኙ እና እንዴት በአካዳማክ ሥራ ላይ የተማሪዎን እድንት እንዴት እንደሚቆጣጠሩ ለማሳወቅ በጽሑፍ ፣ በኢሜል ፣ በስልክ ወይም በክፍል ዶጆ/ በኩል ለማድረስ

- ተማሪዎች ማጠናቀቅ የሚያስፈል2ቸውን የእያንዳንዱ እንቅስቃሴ ቅጅ/ኮፒ

ስእያንዳንዱ ስራዎች የ7ጽ ቁጥሮችን የሚያሳይ የይዘት ሠንጠረዥ

ከተጀመረ ልጅዎ ለትምሀርት ቤት ዝግጁ ለመሆን ይህንን ስራ መሙላት/መስራት አለበት።

- ተማሪዎች በየቀኑ ማጠናቀቅ የሚጠበቅባቸውን ስራዎች የሚያሳይ የቀን መቁጠሪያ









መሆኑን ስማረጋንጥ የተቻስንን ሁሉ እያደረን ነው ፡፡ በዚህ የትምህርት ዓመት የተሸፈኑ መሠረታዊ ይዘቶች ላይ የሚያተኩር ይህንን የትምህርት ቁሳቁስ የያዘ ፓኬጅ ፈጥረናል ፡፡ የትምህርት ዓመቱ በበልግ ወቅት/ፎል እንደንና

ይሀ ፓኬት በግምት የአራት ሳምንታት ሥራን ያካትታል ፡፡ ከግንቦት/ሚይ 4 እስከ 22 ኛው ባለው 2ዜ መምሀራን በዚህ ፓኬጅ ይዘት ዙሪያ እተኩረው ከተማሪዎች ጋር በቨርቹዋል/በኢንተርንት ለሚደረግ ትምህርት መርሃ ግብር ያዘጋጃሉ ፡፡ እባክዎን የተጠናቀቀውን እሽግ ከጁን 5 2020 ዓ.ም. በፊት ወደ ትምህርት ጣቢያ/ ካምፓስ ይመልሱ ፡፡

ትምህርታዋ ዝግጁነት እ 2020 **7th Grade Math**

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7th Grade Math Packet

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Table of Contents

Pages	Content
1	Daily Learning Calendar
	I his calendar provides an overview of the content you will work on each day.
3	 Use this as a reference while you are doing your work each day.
5-8	 Notes & Anchor Charts Here, you will find copies of notes from a Center City teacher. Use these as a reference when you need an example or some suggestions of how to complete the daily learning. You will see reminders to refer to these throughout your packet.
9-10	 Activities & Games Each daily learning assignment includes directions for a specific game. You may need to take some of these out of your packets if they need to be cut out. You can use either the templates provided or blank sheets of paper with them to show your work. Review and use activities & games from the previous packet. Play the new games when you would like, it is optional.
11-69	 Daily Learning Assignments - Each assignment is tableted with the date and includes the following sections: Daily Goal: This will tell you what content you are reviewing each day. Warm-up: This section contains a daily riddle, a fluency game, or a review task. It should take about 15 minutes to complete. You will see a page number to help you find the game or the notes in the packet. Some activities require that you do your work on a separate sheet of paper. Hold on to any extra paper you use and give it to your teacher when you turn in your packet. Edmentum online learning is built into the daily learning for this packet. You should be getting online for 15 minutes each day to work on your learning path. There is a note catcher/template in the "Notes & Anchor Chart" section. Use that to set up your scrap paper while you work. Hold on to this to turn in with your packet. Review & Practice: This section contains the work for the day. It may include notes or activities for you to review in addition to exercises to complete. It should take you about 25-35 minutes to complete. You may need to refer to the notes and anchor charts section of the packet Reflection & Brain Growth: This section contains a question that asks you to reflect on your learning for the day. It should take between 10-15 minutes each day. This section also contains a space to write any questions you need to check in with your teacher about. If you are able to speak with your teacher, you can

Tabla de Contenido									
Páginas	Contenido								
1	 Calendario Cotidiano de Aprendizaje Este calendario proporciona una vista general del contenido en que va a trabaja cada día. 								
3	 Lista de Vocabulario Use esta como referencia mientras trabaja cada día. 								
5-8	 Apuntes y Tablas de Información Aquí, va a encontrar copias de los apuntes de un maestro de Center City. Use esto como referencia cuando necesita un ejemplo o algunas sugerencias de cómo cumplir el paquete de aprendizaje. Va a ver recordatorios para referir a esto durante todo el paquete. 								
0.10	 Actividades y juegos Cada trabajo incluye instrucciones para un juego específico. Tal vez necesita sacar algunas de estas del paquete para cortarlas. Unter puede usar las plantillas e beias blancas de papel con ellos para mostrar su 								
9-10	 Osted puede usar las plantinas o hojas blancas de paper con ellos para mostral su trabajo Revise y use las actividades y juegos del paquete previo. Juege los juegos nuevos cuandoguiera, es opcional. 								
11-69	 Trabajo de Aprendizaje - Cada trabajo está etiquetado con la fecha y incluye las siguientes secciones: Meta del Día: Esta meta va a mostrarle que contenido va a repasar cada día. Para Empezar: Esta sección contiene un acertijo, actividad de fluidez, o un trabajo de repaso. Debe tomar más o menos 15 minutos para cumplirla. Va a ver un numero de pagina para ayudarle encontrar el jeugo o los apuntes en el paquete. Algunas actividades requieren una hoja separada en que a trabajar Guarde el papel extra que usa y entrégalo a su maestra cuando entregue su paquete Aprendizaje en línea con Edmentum está includio en las lecciones cotidianas para este paquete. Debe estar en línea por 15 minutos al día para trabajar en su camino de aprendizaje. Hay un una plantilla/papel para notas en la sección "Notes & Anchor Chart". Use ese para organizar su papel de notas mientras trabaja. Guarde esto para entregarlo con su paquete. Repaso y Práctica: view & Practice: Esta sección contiene el trabajo para el día. Puede incluir los apuntes o actividades para su repaso además de ejercicos para cumplir. Debe tomar 25-35 minutos para cumplir esta sección. Puede necesitar referir a las sección contiene una pregunta para reflexionar en el trabajo del Cerebro: Esta sección contiene una pregunta para reflexionar en el trabajo del día. Esta sección debe tomar entre 10-15 minutos cada día. 								
	 Esta sección contiene un espacio para escribir cualesquiera preguntas que tenga para su maestra acerca del trabajo. Si puede hablar con la maestra, puede anotar la información de la conversación aquí también. If you are able to speak with your teacher, you can record your notes from the conversation here as well. 								

Daily Learning Calendar

Week 1											
Day 1	Day 2	Day 3	Day 4	Day 5							
Pages: 11-13	Pages: 14-16	Pages: 17-19	Pages: 20- 22	Pages: 23-25							
Goal: I can use unit rates to solve real-world problems.	Goal: I can use tables and graphs to compare ratios and find unit rates.	Goal: I can compute unit rates involving fractions to solve real-world problems.	Goal: I can find a percent of a quantity and describe what this means in a real-world context.	Goal: I can use ratios to convert units of measurement.							
Week 2											
Day 1	Day 2	Day 3	Day 4	Day 5							
Pages: 26-29	Pages: 30-31	Pages: 32-33	Pages: 34-36	Pages: 37-39							
Goal: I understand what an additive inverse is and can use it to explain addition of rational numbers on a number line.	Goal: I can use the additive inverse to describe subtraction of rational numbers on a number line.	Goal: I can compute and interpret sums and differences of rational numbers in a real-world context.	Goal: I can use properties of operations to find sums and differences of rational numbers	Goal: I can add and subtract rational numbers in a real world context. I can describe sums and differences using a number line.							
		Week 3									
Day 1	Day 2	Day 3	Day 4	Day 5							
Pages: 40-42	Pages: 43-44	Pages: 45- 47	Pages: 48-51	Pages: 52-56							
Goal: I can extend what I know about addition to find products of rational numbers.	Goal: I can interpret products of rational numbers in real-world contexts.	Goal: I can extend what I know about multiplication to find a quotient of two rational numbers.	Goal: I can interpret quotients of rational numbers in real-world contexts.	Goal: I can multiply and divide rational numbers and interpret the result in real world contexts.							
		Week 4									
	Day 1	Day 2	Day 3	Day 4							
Memorial Day	Pages: 57- 59	Pages: 60-62	Pages: 63-65	Pages: 66-69							
NO SCHOOL	Goal: I can solve real-world problems by adding, subtracting, multiplying, and dividing rational numbers.	Goal: I can solve real-world problems by adding, subtracting, multiplying, and dividing rational numbers.	Goal: I can rewrite expressions in different forms to describe a real-world problem. I can write and interpret inequalities that describe a real-world problem.	Goal: I can use what I've learned during distance learning and the year to reflect on my math journey as a scholar.							

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VOCABULARY LIST

Additive Inverse	What you add to a number to get zero. The negative of a number. Example: The additive inverse of -5 is +5, because $-5 + 5 = 0$ The additive inverse of +5 is -5, because $+5 - 5 = 0$ -5 + 5 = 0 Number Additive Inverse 14 + -14 = 0 Number Additive Inverse							
Borrow	take and use (something that belongs to someone else) with the intention of returning it.							
Convert	to exchange for an equivalent							
Debt	something, typically money, that is owed or due.							
Deposit	a sum of money placed or kept in a bank account, usually to gain interest.							
Owe	have an obligation to pay or repay (something, especially money) in return for something received.							
Withdrawal	an act of taking money out of an account.							
Review Words from April Packet (See vocabulary list for definitions)	Ratio, unit rate, ratio table, rational number, distributive property, constant of proportionality, constant, expression, equation, Coefficient, variable, rational number, inequality							

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NOTES & ANCHOR CHARTS

Edmentum Student Work Template: Each time you work on Edmentum, take notes and show your thinking on a piece of paper that looks like the below.

Date:	Topic/lesson name:
Notes from lesson	
Show Your Work	

NOTES & ANCHOR CHARTS

7.NS2.c Apply properties of operations as strategies to multiply and divide rational numbers.

Property	Addition	Multiplication
Commutative Property	You can add in any order	You can multiply in any
	a+b=b+a	order
	2+4=4+2=6	$a \times b = b \times a$
		$3 \times 4 = 4 \times 3 = 12$
Associative Property	When you add, you can	When you multiply, you can
	group the numbers in any	group the numbers in any
	combination	combination
	a+(b+c)=(a+b)+c	$a \times (b \times c) = (a \times b) \times c$
	1 + (3 + 4) = (1 + 3) + 4	$2 \times (3 \times 5) = (2 \times 3) \times 5$
Identity Property	The sum of zero and any	The product of 1 and any
	number is the number	number is the number
	a+0=a	$a \times 1 = a$
	4 + 0 = 4	$3 \times 1 = 3$

Recall that we can write a division problem as a multiplication problem.

- A positive divided by a negative is negative.
- A negative divided by a positive is negative.
- A negative divided by a negative is positive.



7.EE.4.b Solve word problems leading to inequalities of the form px + q > r or px + q < r, where p, q, and r are specific rational numbers.





Game adapted by Pamela Moeai

SKTLL: Review and practice of multiplication facts to 169 (13 X 13)

PLAYERS: Two of equal skill level

EQUIPMENT: Playing Cards

VALUES:

- Jokers = ()
- Aces = 1
- 2 10 = Face Value
- Jacks = 11
- Queens = 12
- Kings = 13

DIRECTIONS:

- Players divide the cards equally into two piles face down and take a pile.
- Players turn over one card at the same time
- Players multiply the two cards. The first player who says the correct answer out loud, collects both cards.
- In the event of a tie, players leave their cards face down and let the pile build.
- Play resumes until one player gives the correct answer before the other and collects all of the accumulated cards.





Remember: Absolute Value is the positive distance from zero. |83| = 83 and |-83| = 83 because both numbers are 83 units away from zero.



Black Cards ~ Positive



Red Cards ~ Negative

- > Using a deck of playing cards, with Face Cards and Aces removed, divide the deck between both players.
- \succ Each player will lay a card face down at the same time.
- > Decide which card has the highest absolute value. The player who placed that card down wins that round and gets both cards.
- > Repeat until all cards have been played.
- \succ The player with the most cards wins the game!
- ≻ Shuffle and play again.

10

Today's Goal: I can use unit rates to solve real-world problems.

Part 1: Warm-up

1. Riddle of the day: What is the weight of each animal?



2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Review the definition and "Think about it" question. Solve in the space provided.

A Unit Rate tells the rate in lowest terms or the amount for one.

<u> 90 miles</u> =	<u>18 miles</u>
5 hours	1 hour

Think about it! The bodega offers two deals on chicken nuggets. In deal #1 you can buy 5 chicken nuggets for \$2.00. In deal #2 you can buy 8 chicken nuggets for \$3.50. In which deal is each chicken nugget cheaper?

*A bodega is a corner store or market. See image on the right.



Part 3: Practice

Directions: Find the unit rate. Show your work in the space next to or under each question.



Example:

Exercise 1:

	-
240 feet in 12 seconds	
216 runs in 54 games	
\$147 for 3 days	
405 walks in 135 games	
\$294 for 7 days	
450 feet in 25 seconds	
980 miles in 49 seconds	
380 feet in 20 seconds	
\$561 for 11 days	
180 runs in 36 games	

Exercise 2: FIII in the blank with your answer.

1) A scientist uses 2 gallons of liquid for every 7 hours he works. He uses _____ of a gallon each hour he works.

2) A gardener used 4 kilograms of fertilizer over the course of 5 weeks. How much fertilizer did they use each week?

3) A fair owner made 60 dollars when a group of 10 people entered, which is a rate of _____ dollar per person.

4) It took a pet store 8 weeks to sell 64 cats. What is the rate sold per week?

5) A bouquet had 5 flowers and sold for \$25, which is a rate of \$____ per flower.

6) A pencil company used 49 grams of rubber to make 7 pencils, which is a rate of ____ grams per pencil.

7) We paid \$10 for 2 hamburgers, which is a rate of \$____ per hamburger.

8) A baker used 7 bags of flour every 9 days. He used _____ of a bag each day.

9) A tailor used 7 meters of string to make 9 Halloween masks. He used _____ of a meter for each mask.

10) A carpenter used 7 boxes of nails to build 10 bird houses. He used _____ of a box on each bird house.

Week 1: Day 2

Today's Goal: I can use tables and graphs to compare ratios and find unit rates.

Part 1: Warm-up

- 1. Riddle of the day: A word I know, six letters it contains, remove one letter and 12 remains, what is it?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p. 5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Fill in the below blank Venn Diagram for the words "Ratio and Rate" .

(Remember that the outer spaces are for things unique to each vocabulary word and the space where the circles overlap is to show what the two vocabulary words have in common.)



Part 3: Practice

Directions: Read each exercise, solve and write the answers in the space provided.

Exercise 1:

Alan is making banana bread. The ratio of cups of mashed bananas to cups of flour for his recipe is 6:3.

a. Alan uses 3 cups of mashed bananas to make 1 loaf. How many cups of flour will he use? Explain your answer by filling in the table below. Circle your answer.

b. Erik uses Alan's recipe to make banana bread. Erik uses 9 cups of flour in total. How many loaves does Erik make? Explain your answer using numbers, words, and/or pictures. **(Hint:** Try extending your table.)

Exercise 2:

a.

Every box of candy has 6 pieces of candy.

Create a table showing the pieces of candy in up to 5 boxes, then plot the values on the coordinate plane.



- b.
- Every piece of chicken costs \$1.00.

Create a table showing the price for up to 5 pieces of chicken, then plot the values on the coordinate plane.

			_	_															
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Part 4: Reflection & Brain Growth

1.) After completing your work, what questions do you may have for your teacher?

2.) After talking with your teacher in zoom or on the phone about **what you learned**, what are some skills or concepts you now more clearly understand? Why?

Week 1: Day 3

Today's Goal: I can compute unit rates involving fractions to solve real-world problems.

Part 1: Warm-up

- 1. **Riddle of the day:** Mr. Smith has 4 daughters. Each of his daughters has a brother. How many children does Mr. Smith have?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Read the real world problem, draw a picture or create a way to organize the information and answer the question in the space below.

Jenna's family is going on a trip to visit relatives.

- After driving 72 miles, they used 3.2 gallons of gas.
- Her family has 850 miles remaining on their road trip.
- The gas tank in their car can hold 15 gallons.

They filled the gas tank at the start of the road trip. They plan to only stop to fill up when their gas tank nears empty. There are plenty of gas stations along their route.



How many additional stops for gas will Jenna's family need to make to get to their destination? Explain your answer using numbers, words, tables, and/or pictures.

Part 3: Practice

Directions: Choose 4 or 5 problems to complete. *(Answer more if you would like)* Use the answer bank to check your work. Answer as a mixed fraction if possible but remember to look for all forms of your answer. *(It may or may not be simplified.)*

9 ¹⁸ / ₂₆	5 ⁴ / ₂₈	3 %	3 ³ / ₄	$1\frac{34}{78}$
2 ³⁰ / ₁₃₈	11 ¹ / ₅	6 ³ / ₆	8	5 ¹⁰ / ₇₈

A container with 2 ⁵/₆ gallons of paint can cover 3 ⁵/₆ fences. How many gallons would it take to cover 3 fences?

It will take ______ gallons to spray 3 fences.

 A bike shop had to fill 2.5 tires with air. It took a small air compressor 2.5 <u>seconds</u> to fill them up. How long would it take to fill 8 tires?



It will take ______ seconds to fill 8 tires.

3. It takes $3\frac{2}{6}$ spoons of Strawberry syrup to make $2\frac{3}{5}$ gallons of Strawberry milk. How many **spoons** of syrup would it take to make **4 gallons** of Strawberry milk?

It would take ______ spoons of syrup to make 4 gallons of Strawberry milk.

4. 2 ¼ kilometers of thread can make 3 ½ boxes of shirts. How many **kilometers** of thread will it take to make 8 boxes?

It will take ______ kilometers of thread to make 8 boxes.

5. A printer cartridge with 2 $\frac{1}{2}$ milliliters of ink will print off $\frac{2}{3}$ of a box of paper. How many **milliliters** of ink will it take to print an entire box?



It will take ______ milliliters of ink to print an entire box of paper.

6. A water faucet leaked 2 ½ liters of water every ⅓ of an hour. The faucet leaked at a rate of how many liters per hour?

It will take _____ liters per hour.

7. A carpenter goes through 2 $\frac{2}{6}$ boxes of nails finishing 3 $\frac{1}{4}$ roofs. How much would he use finishing 2 roofs?

The carpenter would use ______ in order to finish 2 roofs.

Week 1: Day 4

Today's Goal: I can find a percent of a quantity and describe what this means in a real-world context.

Part 1: Warm-up

- 1. **Riddle of the day:** How do you write 23 using only the number 2? 34 using only the number 3? 56 using only the number 5? 100 using only the number 9?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Fill in the blank to make equivalent forms of the same value.

	fraction	decimal	percent
a.	<u>15</u> 100	.15	
b.	73 100		73%
c.			39%
d.	<u>4</u> 100		
e.		.77	
f.			46%
g.	<u>50</u> 100		
h.		.06	

Part 3: Practice

Directions: Use the example to solve exercise 1. For exercise 2, choose the best answer from the choices.

Jack bought a bike that was 35% off the original price. Let *p* represent the original price. What expressions can be used to calculate the sale price?

Expression #1	Expression #2	
<i>p</i> 35 <i>p</i>	.65 <i>p</i>	

Example:

Exercise 1:

David earns 4% for the money he has in savings. Let <i>a</i> represent how much he has in his account. Write two expressions that can be used to calculate the amount of money in his account after one month.	Tamara has money in a savings account which earns 3% interest each month. Write two expressions that can be used to calculate the amount of money in her account after one month. Let <i>a</i> represent the amount of money in her account.	
Expression #1 Expression #2	Expression #1 Expression #2	
Rebekah is going to leave a 20% tip for her meal. Let <i>c</i> represent the cost of her dinner. Write two expressions that can be used to calculate the cost of a dinner including the tip.	Tyler is leaving a 15% tip on the bill for his dinner. Let b represent the amount of his bill. What expressions can be used to represent the total cost of dinner, including his tip?	

Expression #1

Expression #2

Expression #1

Expression #2

What expressions can be used to calculate the total price of a DVD that cost d dollars, if the tax rate is 7.5%?

A board game cost *d* dollars. The sales tax rate is 8%. Write two expressions that can be used to calculate the total cost for the game, including tax.

Expression #1	Expression #2	Expression #1	Expression #2
			21

Exercise 2:

Directions: Choose the correct answer for each question. To push yourself, practice explaining for 1 or 2 of the questions how you know your answer is correct.

1) A cell phone company dropped the prices on their phones by 9%. Which expression shows the new price of the phones(p)?

A. p - 0.09p B. p - 1.09 C. p × 0.09 D. p - 0.09

2) Over the summer gas prices dropped 3%. Which expression shows the new price of a gallon of gas? (the old price is represented by g)

A. g × 0.03 B. g - 1.03 C. g - 0.03g D. g - 0.03

3) While clearing out some old inventory a store offered 10 percent off of any item(i). Which expression can be used to calculate the new cost of an item?

A. i - 1.1 B. i - 0.1i C. i × 0.1 D. i - 0.1

4) Joe was earning \$11 an hour before his raise. After his 5% raise he was making \$11.55 an hour. Which expression shows how his new hourly rate was calculated?
A. 11 × 1.05
B. 11 × 0.05
C. 11 + 0.05
D. 11 + 1.05

Part 4: Reflection & Brain Growth

Choose either, David, Tamara, Rebekah or Tyler's situations from exercise 1. Explain how both expressions relate to the quantities in the problem and how they are equivalent.

Week 1: Day 5

Today's Goal: I can use ratios to convert units of measurement.

Part 1: Warm-up

1. Riddle of the day: Create an equation using all the below numbers and mathematical symbols.



2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Read the task and solve in the space provided.

- a. Jose went to the store where everything was on sale for 50% off. He wanted to buy a shirt that costs \$50. How much will he spend on the shirt?
- Answer: _____

Explain how you got your answer: _____

b. Jose went to another store that has a sale of 25% off everything. He wants to buy jeans that cost \$40. How much money will he save on the jeans?

Answer: _____

Part 3: Practice

Directions: Solve each question in Exercise 1 and 2. Show your work in the space provided or on a separate sheet if you need more space.

Supplemental Videos:

What does "convert mean"? Type this website into your browser: <u>https://www.youtube.com/watch?v=PCg6IaLGjTQ</u> How to convert measurements? Type this website into your browser: <u>https://www.youtube.com/watch?v=eKssC1gKGpw</u>

Exercise 1:

Lin rode a bike 20 miles in 150 minutes. If she rode at a constant speed,

a. How far did she ride in 15 minutes?

b. How long did it take her to ride 6 miles?

c. How fast did she ride in miles per hour?

d. What was her pace in minutes per mile?

Exercise 2:

	 A gallon container of tropical fruit juice cost \$ a. \$5 b. \$.50 	8.0 c. d.	0. What is the cost of the juice per cup?\$12	
	2. Which is more 2 kilometers or 250 meters?a. 250 metersb. Neither, they are both the same.	c.	2 kilometers	
	3. 2 lbs 3 oz times 25 = a. 57 lbs 5 oz b. 50 lbs 75 oz	c. d.	56 lbs 3 oz 54 lbs 11 oz	
	4. 3 yds 2 ft + 2 ft = a. 4 yds 1 ft b. 3 yds 4 ft	c. d.	5 yds 4 yds	
5. Convert				
	9 yds 2 ft =ft a. 29 ft b. 38 ft	c. d.	20 ft 11 ft	
	6. Convert			
	6 gallons 2 quarts =quarts a. 8 quarts b. 12 quarts	c. d.	14 quarts 26 quarts	
	7. Which is more 6 pints or 3 quarts?a. 3 quartsb. Neither, they are both the same.	c.	6 pints	
	8. Which is more 2.5 meters or 260 centimeters?a. 260 centimetersb. Neither, they are both the same	c.	2.5 meters	

Week 2: Day 1

Today's Goal: I understand what an additive inverse is and can use it to explain addition of rational numbers on a number line.

Part 1: Warm-up

- 1. Riddle of the day: What question can you never answer yes to?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Review the statement and examples below, then solve the problem below.

Remember:

When we add 2 numbers with the same sign, we move in the same direction on the number line.



Try it and show your work on the number line below.

I owed my brother \$8. I earned \$20 mowing lawns. How much money do I have now?

Part 3: Practice

Directions: In exercise 1, read the task and answer the questions below. In exercise 2, use the number line to show each expression. Solve and write the equation on the line next to each problem.

Example:



Exercise 1:

Ojos del Salado is the highest mountain in Chile, with a peak at about 6,900 meters above sea level.



The Atacama Trench, just off the coast of Peru and Chile, is about 8,100 meters below sea level (at its lowest point).



a. Place Ojos del Salado's elevation of 6,900 meters above sea level and Atacama Trench of 8,1000 meters below sea level on the number line below.



b. What is the difference in elevations between Mount Ojos del Salado and the Atacama Trench?

The difference in elevations between Mount ojos del Salado and the Atacama Trench is

c. Is the elevation halfway between the peak of Mount Ojos del Salado and the Atacama Trench above sea level or below sea level? Explain without calculating the exact value.

The elevation halfway between the peak of Mount Ojos del Salado and the Atacama Trench is **above/below (choose one)** sea level. Without calculating the exact value I know this because

d. What elevation is halfway between the peak of Mount Ojos del Salado and the Atacama Trench?

The elevation halfway between the peak of Mount Ojos del Salado and the Atacama Trench is
Exercise 2: Use the number line to show each expression. Solve and write the equation on the line next to each problem.



Part 4: Reflection & Brain Growth

1. After completing your work, what questions do you may have for your teacher?

2. After talking with your teacher in zoom or on the phone about **what you learned**, what are some skills or concepts you now more clearly understand? Why?

Week 2: Day 2

Today's Goal: I can use the additive inverse to describe subtraction of rational numbers on a number line.

Part 1: Warm-up

1. Riddle of the day: How many numbers do you see here?



2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Use the number line to show each expression. Solve and write the equation next to each problem.

Start at 3 and add -7	↓ -20	- <u>15</u>	-10	-5	++ ∎ ++ 0	++ ++ 5	+++ +++ 10	++ +++ 15	20
Start at 0 and add 5	↓ -20	- <u>15</u>	-10	++ ++ -5	┼┼╉┼┼ O	++ ++ 5	+++ +++ 10	++ ++ 15	<u>+</u> 20
Start at -7 and add 2	↓ -20	- <u>15</u>	-10	++ - ++ -5	++ ++ 0	++ ++ 5	++ + ++ 10	++ ++ 15	20
Start at 5 and add -10	↓ -20	-15	-10	++ + -5	++ ₽ ++ 0	++ ++ 5	+++ +++ 10	++ +++ 15	20
Start at 0 and add -6	↓ ++ -20	- <u>15</u>	-10	++ ++ -5	+ + ∎ + + 0	++ ++ 5	+++ - +++ 10	++ +++ 15	+ ↓ 20

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Part 3: Practice
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Directions: Read and solve each guestion in exercise 1 and 2.

Supplemental Video: Type into browser: https://www.youtube.com/watch?v=7 2AWW28XtE

Exercise 1: Read the real world problem and answer the questions below.

Ocean water freezes at about $-2\frac{1}{2} \circ C$. Fresh water freezes at $0 \circ C$. Antifreeze, a liquid used in the radiators of cars, freezes at $-64 \circ C$. Imagine that the temperature has dropped to the freezing point for ocean water.

a. How many degrees more must the temperature drop for the antifreeze to turn solid?

Hint: In other words, what is the distance between the freezing point for ocean water and the freezing point for Antifreeze?



The temperature would have to drop another <u>degrees</u> for the antifreeze to turn solid.

Exercise 2: Find the difference between the two integers, first by rewriting the subtraction as an addition problem, and then complete the addition. Then choose 2 of the equations to show your reasoning on a number line.

Example: -8 - 5 = -8 + (-5) = (-13)



Week 2: Day 3

Today's Goal: I can compute and interpret sums and differences of rational numbers in a real-world context.

Part 1: Warm-up

- 1. **Riddle of the day**: If 3 cats can catch 3 bunnies in 3 minutes, how long will it take 100 cats to catch 100 bunnies?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Review the words below about debt. Then use them in a two sentence story about money.

borrow owe deposit	bought withdrawal
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Part 3: Practice

Directions: Read the task and the bulleted list of instructions. Fill in the table and explain your thinking to the prompt below the table.

Exercise 1:



At the beginning of the month, Evan had \$24 in his account at the school bookstore.

• Use a variable to represent the unknown quantity in each transaction below and write an equation to represent it.

• Then represent each transaction on the number line. What is the unknown quantity in each case?

• Lastly, below the table, explain why it makes sense to use a negative number to represent Evan's account balance when he owes money.

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Explain why it makes sense to use a negative number to represent Evan's account balance when he owes money.

Part 4: Reflection & Brain Growth

After completing your work, what questions do you may have for your teacher?

Week 2: Day 4

Today's Goal: I can use properties of operations to find sums and differences of rational numbers

Part 1: Warm-up

- 1. Riddle of the day: How many letters are there in the English alphabet?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Look at the table below and write your ideas for what the numbers in the second column could represent. Use the questions below to help you think of a name for the second column.

Day	?
Monday	$-\frac{1}{4}$
Tuesday	- 1.2
Wednesday	1 2
Thursday	-5
Friday	-2.8
Saturday	1.2
Sunday	4

What is something that increases and decreases over time? What things could change in these amounts? What changes this much, this quickly?

Some possible headings for the second column are:

Part 3: Practice

Directions: Think about the below properties when using a strategy to solve the tasks below.

Property	Addition	Multiplication
Commutative Property	You can add in any order	You can multiply in any
	a+b=b+a	order
	2+4=4+2=6	$a \times b = b \times a$
		$3 \times 4 = 4 \times 3 = 12$
Associative Property	When you add, you can	When you multiply, you can
	group the numbers in any	group the numbers in any
	combination	combination
	a+(b+c)=(a+b)+c	$a \times (b \times c) = (a \times b) \times c$
	1+(3+4)=(1+3)+4	$2 \times (3 \times 5) = (2 \times 3) \times 5$
Identity Property	The sum of zero and any	The product of 1 and any
	number is the number	number is the number
	a+0=a	$a \times 1 = a$
	4 + 0 = 4	$3 \times 1 = 3$

Exercise 1:

Juan marked the water level at the beginning of the year. At the end of every month he recorded how much the water level had changed.

What is the total amount of change in water level over the course of 6 months?

Month	Change in Water Level (cm)
January	- 5 - 8
February	0.6
March	2 5 8
April	-4
May	-2.9
June	3.2

The ending water level was 6.4 meters. What was the starting level?

Which property could be used to solve? Explain.

Exercise 2:

What is the total change in backpack weight? Explain the property you could use and your strategy.

Day	Change in backpack weight (pounds)
Monday	1.3
Tuesday	-1.2
Wednesday	$\frac{1}{4}$
Thursday	$-\frac{1}{2}$
Friday	-2.8

Part 4: Reflection & Brain Growth

After talking with your teacher in zoom or on the phone about **what you learned**, what are some skills or concepts you now more clearly understand? Why?

Week 2: Day 5

Today's Goal: I can add and subtract rational numbers in a real world context . I can describe sums and differences using a number line.

Part 1: Warm-up

- 1. Riddle of the day: What is always in front of you but can't be seen?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: In each diagram X represents a different value. For each diagram, determine whether the following statements are *definitely* true or *could be* true. Select the correct answer for each statement below by filling in the circle.





b.

	is definitely true	could be true
The value of $m{x}$ is positive.	0	0
The value of x is definitely between 1 and 2, since x is a little greater than 1.	0	0
The value of x is 1.4 or $1\frac{1}{3}$ these values are positive and between 1 and 1.5.	0	0

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Part 3: Practice
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Directions: Read each exercise and complete the table. The first one is an example.

Exercise 1: Review the number line. Then decide if each expression in the table would be positive or negative. Explain your reasoning.

A number line is shown below. The numbers 0 and 1 are marked on the line, as are two other numbers a and b.



Expression	Positive or Negative	Explain your reasoning
a-1	Positive	Because "a" has a greater absolute value than 1
<i>a</i> – 2		
- <i>b</i>		
<i>a</i> + <i>b</i>		
a-b		
<i>ab</i> + 1		

Exercise 2: Use the number line to demonstrate thinking of each problem. Then solve.

1. Clare has **\$54 in her bank account**. A store credits her account with a **\$10 refund**. How much does she now have in the bank?



2. Mai's bank account is **overdrawn by \$60**, which means her balance is -\$60. She gets **\$85** for her birthday and **deposits** it into her account. How much does she now have in the bank?



3. Tyler is **overdrawn** at the bank by **\$180**. He gets **\$70** for his birthday and deposits it. What is his account balance now?

4. Andre has **\$37** in his bank account and writes a check for **\$87**. After the check has been cashed, what will the bank **balance** show?

Week 3: Day 1

Today's Goal: I can extend what I know about addition to find products of rational numbers.

Part 1: Warm-up

- 1. Riddle of the day: If 7 is transformed into 13 and 11 is changed to 21 then what does 16 become?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p. 5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Solve the problems in the boxes then the practice problem underneath each to review addition of integers. Fill in the blanks to complete the sentence.



Add integers with the same sign by finding the _____. Keep the sign of the numbers.



Part 3: Practice

Directions: Read the task, solve and write the answer in the space provided.

Supplemental Video: Type into browser: <u>https://www.youtube.com/watch?v=YiucgHveNj8</u> Also see the Multiplying and Dividing Rational Expressions anchor chart p.7

Exercise 1:

A traffic safety engineer was studying travel patterns along a highway. She set up a camera and recorded the speed and direction of cars and trucks that passed by the camera. Positions to the east of the camera are positive, and to the west are negative.

Think about movement east or west as positive or negative velocity. Distance = velocity × time

1. Here are some positions and times for one car:

position (feet)	-180	-120	-60	0	60	120
time (seconds)	-3	-2	-1	0	1	2

- a. In what direction is this car traveling?
- b. What is its velocity?
- 2. Here are the positions and times for a different car whose velocity is -50 feet per second:

position (feet)				0	-50	-100
time (seconds)	-3	-2	-1	0	1	2

- a. Complete the table with the rest of the positions.
- b. In what direction is this car traveling? Explain how you know.



3. Fill out the table and answer the questions below.

	velocity (meters per second)	time after passing camera (seconds)	ending position (meters)	equation
car C	+25	+10	+250	$25 \cdot 10$ = 250
car D	-20	+30		
car E	+32	-40		
car F	-35	-20		
car G	-15	-8		

- a. If a car is traveling east when it passes the camera, will its position be positive or negative 60 seconds *before* it passes the camera.
- b. If we multiply a positive number and a negative number, is the result positive or negative?
- c. If a car is traveling west when it passes the camera, will its position be positive or negative 60 seconds *before* it passes the camera?
- d. If we multiply two negative numbers, is the result positive or negative?

Part 4: Reflection & Brain Growth

Explain in your own words and complete sentences what you know about multiplying rational numbers.

Week 3: Day 2

Today's Goal: I can interpret products of rational numbers in real-world contexts.

Part 1: Warm-up

- 1. Riddle of the day: What's black and white and blue?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Subtract the integers on the number line, draw counters to subtract and answer 9-12 below. Then complete the sentence.



Subtract integers by rewriting the problem as ______.

Part 3: Practice

Directions: In exercise 1, fill in the blanks. In exercise 2, read the task, solve and explain your reasoning in words or numbers.

Supplemental Video: Type into browser: <u>https://www.youtube.com/watch?v=YiucgHveNj8</u> Also see the Multiplying and Dividing Rational Expressions anchor chart p. 7 **Exercise 1:** Fill in the missing numbers in each equation. Write the answers in the boxes.



Exercise 2: Read the task and fill in the answers.

A weather station on the top of a mountain reports that the temperature is currently 0°C and has been falling at a constant rate of 3°C per hour. Find each temperature.

a. If it continues to fall at this rate, what will the temperature be:



In 2 hours? 6_°C	In 5 hours?	°C	In a half hour?	°C

b. What was the temperature?

1 hour ago?	°C	3 hours ago? _	°C	4.5 hours ago?	°C
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c. For each question in a & b, explain or show your reasoning. The first one has been done as an example.

In 2 hours?6°C	$-3 \cdot 2 = -6$
In 5 hours?°C	
In a half hour?°C	
1 hour ago?°C	
3 hours ago?°C	
4.5 hours ago?°C	

Week 3: Day 3

Today's Goal: I can extend what I know about multiplication to find a quotient of two rational numbers

Part 1: Warm-up

- 1. Riddle of the day: When things go wrong, what can you always count on?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Read the two statements below and provide your thinking and reasoning in the box below.

One of these statements is true in *all* cases.

- 1. The product of any two whole prime integers is a rational number.
- 2. The quotient of any two even integers is an irrational number.

For the statement that is not true in all cases, provide one clear reason and/or example that proves the statement can be false.

Part 3: Practice

Directions: Review the reminders below. Then read each exercise and answer the questions.

Supplemental Video: Type into browser: https://www.youtube.com/watch?v=YiucgHveNj8

Also see the Multiplying and Dividing Rational Expressions anchor chart p. 7

Reminders:

- Recall that we can write a division problem as a multiplication problem.
- A positive divided by a negative is negative.
- A negative divided by a positive is negative.
- A negative divided by a negative is positive.

Exercise 1:

1. Find the missing values in the equations and then rewrite the unknown factor problems as division problems.

Equation	Product	Rewritten as a Division Equation
-3·4=?		
-3·?=12		
3.?=12		
? 4=12		
?.4=-12		

2. Complete the sentences. Be prepared to explain your reasoning.

- a. The sign of a positive number divided by a positive number is always:_____
- b. The sign of a positive number divided by a negative number is always:_____
- c. The sign of a negative number divided by a positive number is always:_____
- d. The sign of a negative number divided by a negative number is always:_____

3. Han and Clare walk towards each other at a constant rate, meet up, and then continue past each other in opposite directions. We will call the position where they meet up 0 feet and the time when they meet up 0 seconds.

- Han's velocity is 4 feet per second
- Clare's velocity is -5 feet per second
 - Where is each person 10 seconds before they meet up?

• When is each person at the position -10 feet from the meeting place?

Exercise 2:

A water well drilling rig has dug to a height of -60 feet after one full day of continuous use. (24 hours)

1. Assuming the rig drilled at a constant rate, what was the height of the drill after 15 hours?

2. If the rig has been running constantly and is currently at a height of -147.5 feet, for how long has the rig been running?

- hours -50 feet
- 3. Use the coordinate grid to show the drill's progress.

4. At this rate, how many hours will it take until the drill reaches -250 feet?

Part 4: Reflection & Brain Growth

- 1. After completing your work, what questions do you may have for your teacher?
- 2. After talking with your teacher in zoom or on the phone about **what you learned**, what are some skills or concepts you now more clearly understand? Why?

Week 3: Day 4

Today's Goal: I can interpret quotients of rational numbers in real-world contexts.

Part 1: Warm-up

1. Riddle of the day: What is the number of parking space containing the car?



2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p. 5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Review the interpreting remainder anchor chart below. With the problems on the right, the work is shown but you need to interpret the remainder to answer the question to the problem. Write your answers in a sentence in the space below.



Part 3: Practice

Directions: Solve each of the problem task cards in the blank (AND LABELLED) space provided below. Then write the letter of the problem in the graphic organizer where it fits into a category. Each problem fits in only one of the categories.

Problem A:	Problem B:	Problem C:
A bakery is packaging cookies into bags of 8 cookies. The baker has 154 cookies. How many complete bags of cookies can be made?	A sewing class has 205 yards of fabric to make quilts. Each quilt requires 7 yards of fabric. How much will remain after all the quilts are made?	There are 139 fourth- grade students going on a field trip. The school is using vans that can hold 9 students. How many vans are needed for the field trip?
Problem D:	Problem E:	Problem F:
A restaurant is having a party for 325 guests. Each table seats 8 guests. How many tables are needed for the guests?	Joan had 61 yards of yarn to use for her craft projects. She needs exactly 5 yards of yarn for each project. How many craft projects can Joan complete with the yarn?	Ms. Zamora needs 90 notebooks for the school year. The notebooks are sold in packages of 4 notebooks. How many packages of notebooks does Ms. Zamora need to order?

Problem G:	Problem H:
An apple farmer picked 562 apples on Monday. He shipped an equal number of apples to 7 different stores and saved the rest for his family. How many apples did he save?	Mary will place cans of food in boxes to ship to a restaurant. She has 73 cans of food and needs to place 6 cans in each box. What is the greatest number of complete boxes of cans of food she can make with 73 cans?

Α	В	С
	E	F
D		
G	н	

The answer is the whole number quotient. The remainder does NOT impact the answer.	The answer is the whole number quotient plus 1. The remainder impacts the answer.	The answer is the remainder.

Part 4: Reflection & Brain Growth

Read the problem below. Explain the flaw in Alexie's reasoning and then determine the value of X.

The flaw in Alexie's reasoning	g is	
Determine the va	lue of x for which $rac{-x}{4}=2.$	
Explain the flaw i	n Alexie's reasoning.	
"When <i>x</i> is nonze	Fro, the value of $\frac{-x}{4}$ is always negative since the numerator is negative."	
Alexie makes the	following statement:	

Week 3: Day 5

Today's Goal: I can multiply and divide rational numbers and interpret the result in real world contexts

Part 1: Warm-up

- 1. Riddle of the day: What happens once in a lifetime, twice in a moment, but never in one hundred years?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review



, the product/quotient is negative.

Part 3: Practice

Directions: Read and solve the questions in exercise 1 and 2.

Supplemental Video: Type into browser: <u>https://www.youtube.com/watch?v=YiucgHveNj8</u> Also see the Multiplying and Dividing Rational Expressions anchor chart p. 7 Exercise 1: You'll need scratch paper to show your work 1- 10.

1. Which of the following situations are equivalent to a climbing rate of $-\frac{1500}{4}$ feet per hour? Choose all correct answers.

- a. After 4 hours, a hiker had descended 1500 feet.
- b. After 4 hours, a hiker had ascended 1500 feet.
- c. Four hours ago, a hiker was 1500 feet higher.
- d. Four hours ago, a hiker's elevation was 1500 feet lower.
- e. Four hours from now, a hiker's elevation will be 1500 feet higher.
- f. Four hours from now, a hiker's elevation will be 1500 feet lower.

2. Which of the following situations are equivalent to a diving rate of $\frac{35}{3}$ feet per minute? Choose all correct answers.

- a. In 3 minutes, the diver swam up 35 feet.
- b. In 3 minutes, a diver ascended 35 feet.
- c. Three minutes ago, a diver's depth was 35 feet higher.
- d. Three minutes ago, a diver's depth was 35 feet farther below sea level.
- e. Three minutes from now, a diver's depth will be 35 feet higher.
- f. Three minutes from now, a diver's depth will be 35 feet lower.

3. Which of the following rates are equivalent to a temperature decreasing 7 degrees in 6 minutes? Choose all correct answers.

- a. $\frac{-7}{6}$ degrees per minute
- b. $\frac{7}{-6}$ degrees per minute
- c. $\frac{-7}{-6}$ degrees per minute
- d. $\frac{7}{6}$ degrees per minute
- e. $-\frac{7}{6}$ degrees per minute
- f. $-\frac{-7}{6}$ degrees per minute

4. Leo can't remember some of his rules for multiplication with signed numbers, but he remembers that the distributive property can help him. He uses the distributive property below. Fill in the blank

$$egin{array}{rll} -5 imes(4+-1) = (-5 imes4) + (-5 imes-1)\ -5 imes3 = & -20 & + & ___\ -15 = -15 \end{array}$$

5. Do you agree with the student's reasoning of why $-2 \times -5 = 10$?

I know that $2 \times -5 = -10$, because it's (-5) + (-5), or two arrows with a length of 5 units in the negative direction on the number line.



Since the negative sign can also mean "opposite of", then if $2 \times -5 = -10$, then -2×-5 must be the opposite of -10, positive 10.

Circle one: Yes or No

6. Which equations are represented by the number line? Circle all that apply.



3(-2)=-6 2(-3)=-6 (-2)+(-2)=-6 $(-6)\div 3=-2$

7. Of the above equations that are NOT represented on the number line, explain below why not.

- 8. Decide if each of the below equations is true or false. Write next to each "true or false".
 - $7 \cdot 8 = 56$ $-7 \cdot 8 = 56$ $-7 \cdot -8 = -56$ $-7 \cdot -8 = 56$
- 9. Which of the following expressions is NOT equivalent to -7/8 ? Select all correct answers.
 - a. $-\left(\frac{7}{8}\right)$ b. $\frac{-7}{-8}$ c. $\frac{-7}{8}$ d. $\frac{7}{-8}$ e. $-\left(-\frac{7}{8}\right)$

10. Which of the following expressions is NOT equivalent to $-\frac{9}{10}$? Select all correct answers.

- a. $-9 \div (-10)$
- **b.** $-9 \div 10$
- **c.** $-10 \div 9$
- d. $10 \div (-9)$
- e. $-(-9 \div 10)$
- f. $-(9 \div 10)$

Exercise 2: Write an equation, show your strategy and explain in words how you solved the below real world problem.

Todd sold 32 raffle tickets. Kate sold 12 raffle tickets. Tyler sold twice as many tickets as Todd and Kate combined. How many raffle tickets did Tyler sell?

Equation	Strategy Work
Explanation	

Week 4: Day 1

Today's Goal: I can solve real-world problems by adding, subtracting, multiplying, and dividing rational numbers.

Part 1: Warm-up

1. Riddle of the day: How many circles contain a black dot?



2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p. 5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Solve and write your answer to the equation on the line.

Find the sums and differences.

a) –30 – 17 + 23 = _____

b) -150 + -75 = _____

Find the product or quotient.

- a) 13 −7 = _____
- b) 99 ÷ -3 = _____
- c) If *a* is a positive number and *b* is a negative number the product of *a* and *b* will be ______.

Part 3: Practice

Directions: Read each exercise and solve in the space provided.

Supplemental Video: Type into your browser: <u>https://www.youtube.com/watch?v=uRrsTH3qC5c</u>

Exercise 1:

The Hiking Club is on a trip to hike up a mountain. The members increased their elevation 290 feet during their hike this morning. Now they are at an elevation of 450 feet.

a. Explain how to find their elevation before the hike.



b. Han says the equation e+290=450 describes the situation. What does the variable e represent?

c. Han says that he can rewrite his equation as e=450+(-290) to solve for e. Compare Han's strategy to your strategy for finding the beginning elevation.

Word Problem	Identify Operation(s) Used	Key Words and/or Phrases	Create Expression and Solve.
There was 32.8 gallons of gas in Mr. David's car. After 24.2 gallons of gas was used, Mr. David filled his car with 17.5 gallons of gas. How much gas is there in Mr.			
David's car now?			
Tom weighed 145.3 pounds. He dieted for six months and lost 17.5 pounds. He then gained 21.7 pounds.			
What is Tom's final weight?			
Harry made strawberry jam and raspberry jam. He made enough strawberry jam to fill 1/2 of a jar. If he made 4 times as much raspberry jam as strawberry jam, how many jars will the raspberry jam fill?			
Yesterday, Oscar's Snack Shack went through 2/3 of a bottle of ketchup. If they used 1/2 as much mustard as ketchup, how many bottles of mustard did they go through?			

Exercise 2:

Week 4: Day 2

Today's Goal: I can solve real-world problems by adding, subtracting, multiplying, and dividing rational numbers.

Part 1: Warm-up

- 1. Riddle of the day: Where can you find cities, towns, shops, and streets but no people?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.



Part 3: Practice

Directions: Complete the problems below to help you practice applying your knowledge of decimal and fraction division.

Exercise 1:

Find the quotient of 4.5/0.9	
Find the quotient of (-27.5)÷2.5	
Find the quotient and write your answer as a completely $ \frac{11}{2} $ $ \frac{22}{3} $ simplified fraction.	

Exercise 2:

Ashley's family is driving to her uncle's house. The family travels 383.5 miles between 10:15 am and 4:45 pm.

Calculate the family's average rate of travel for the day. Give your answer as a decimal rounded to the nearest tenth.

Exercise 3:

A rectangular tabletop has an area of $10\frac{1}{2}$ square feet and a length of $3\frac{1}{3}$ feet. What is the width of the tabletop?

*Choose all correct answers







Exercise 5: Challenge

You use a debit card to purchase several scrunchies. Your account balance after buying the scrunchies changes by -\$30.90. For each scrunchie you purchased, the change in your account balance was -\$5.15. How many scrunchies did you buy?

1. Complete the Venn Diagram with what you know about dividing fractions and decimals.



2. Do you prefer dividing fractions or dividing decimals? Why?

3. What questions do you have about the work you completed today?

Week 4: Day 3

Today's Goal: I can rewrite expressions in different forms to describe a real-world problem. I can write and interpret inequalities that describe a real-world problem.

Part 1: Warm-up

- 1. **Riddle of the day:** Mr. Blue lives in the Blue house. Mrs. Yellow lives in the Yellow House. Mr. Orange lives in the orange house. Who lives in the White House?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p.5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Read the problems below and explain your thinking in the space next to each equation.

1. All items are being sold at 35% discount. If the original price of the item is x dollars, which of the following equations can be used to determine the sale price, p? For each choice, explain how you know it can or cannot be used to determine sale price.

i) p = 0.35xii) p = 0.65xiii) p = x + 0.35x

2. For each number line representation, create two different inequalities that match the solution set of the number line.



Part 3: Practice

Directions: Read each exercise and solve in the space provided for each question.

Exercise 1: Read the real world problem about tax and tip. Answer both part A and part B in the space provided.

After eating at your favorite restaurant, you know that the bill before tax is \$52.60 and the sales tax rate is 8%. You decide to leave a 20% tip for the waiter based on the pre-tax amount.

Part A: How much will the total bill be, including tax and tip? Show work to support your answers.

Part B: What are two, equivalent expressions that can be used to calculate the 8% tax rate? What are two, equivalent expressions that can be used to calculate the 20% tip?

(For example: A discount of 10% can be calculated in the following two ways: x - .10x **OR** .90x because a decrease of 10% is equivalent to multiplying by the remaining 90%.)

What do I <u>KNOW</u> about this problem?	WHAT do we Need to Know in this problem?	IDEAS for Solving

Show your work:

FINAL ANSWER (Use original question as a sentence starter...)
Exercise 2: Read and solve the inequality problems below.

a. Dara has a goal to work at least 35 hours next week, excluding the weekend. She plans to work 6.5 hours on Monday and an equal amount each day for the rest of the week. Determine the amount of time that could be worked to meet the goal.

b. Explain the difference between the following inequalities.

2x - 8 < 10 -2x - 8 < 10

Part 4: Reflection & Brain Growth

1. After completing your work, what questions do you may have for your teacher?

2. After talking with your teacher in zoom or on the phone about **what you learned**, what are some skills or concepts you now more clearly understand? Why?

Week 4: Day 4

Today's Goal: I can use what I've learned during distance learning and the year to reflect on my math journey as a scholar.

Part 1: Warm-up

- 1. Riddle of the day: What has to be broken before you can use it?
- 2. Log into Edmentum: Work on your learning path for 15 minutes and show work on a seperate piece of paper. See the template (p. 5) in "Notes & Anchor Charts" section of this packet.

Part 2: Review

Directions: Go back through your "Notes & Anchor charts", "Vocabulary List" and "Daily Learning Calendar" from April and May packets. Fill in the chart below with the content from reviewing these past two packets.

A skill, or concept, I learned since "Distance Learning" started	A skill, or concept, I grew stronger in since "Distance Learning" started	A skill, or concept, I wish I had more time with during "Distance Learning".

Part 3: Practice, Reflection & Brain Growth

Directions: Reflect on your school year and write your thoughts below.

1. What is something we did this year that you think you will remember for the rest of your life?

2. What is something you accomplished in Math this year that you are proud of?

3. What was the nicest thing someone in our class did for you this year?

4. What was the most challenging part of this year for you?

5. What are the three most important things you learned in Math this year?

6. What is something that was hard in Math for you at the start of the year but is easy now?

7. In what area do you feel you made your biggest improvements in Math?

8. What is something you taught your teacher or classmates this year?

9. What person at our school has made the biggest impact in your life this year? Why?

10. What is something the teacher could have done to make this year better?

11. Knowing what you know now, if you could write a letter to yourself that would travel back in time so that you would receive it at the start of the school year, what advice would you give your younger self?

12. What advice would you give students who will be in this class next year?



Research has shown that if you believe in yourself and you make a mistake, your brain responds with more activity and brain growth than if you don't believe in yourself.