

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1. LES Story Problem 2. Fair Shares p.82-83	1. LES Story Problem 2. Share & Share Alike p.84	1. LES Story Problem 2. Fractions & Mixed Numbers p.85-86	1. LES Story Problem 2. Fractions & Mixed Numbers on a Number Line p.87	1. LES Story Problem 2. Fractions & Division Tables p.88
<b>HINTS</b> *45-60 minutes at most to compete, leave unfinished work for tomorrow *Students will work to solve all story problems *Equal Parts <a href="https://youtu.be/jgWqSjgMAtw">https://youtu.be/jgWqSjgMAtw</a> *3 Reads by Mr. Korn <a href="https://youtu.be/9L95ciz4wEM">https://youtu.be/9L95ciz4wEM</a>	<b>HINTS</b> *45-60 minutes at most to compete, leave unfinished work for tomorrow *Equal Shares <a href="https://youtu.be/rQaqx05QXlo">https://youtu.be/rQaqx05QXlo</a>	<b>HINTS</b> *45-60 minutes at most to compete, leave unfinished work for tomorrow *Convert Fractions <a href="https://youtu.be/nWZnyRTwBFM">https://youtu.be/nWZnyRTwBFM</a>  <a href="https://youtu.be/TrutPJf9GmQ">https://youtu.be/TrutPJf9GmQ</a>  <a href="https://youtu.be/LB3-IFkqpBk">https://youtu.be/LB3-IFkqpBk</a>	<b>HINTS</b> *45-60 minutes at most to compete, leave unfinished work for tomorrow *Convert Fractions <a href="https://youtu.be/nWZnyRTwBFM">https://youtu.be/nWZnyRTwBFM</a>  <a href="https://youtu.be/TrutPJf9GmQ">https://youtu.be/TrutPJf9GmQ</a>  <a href="https://youtu.be/LB3-IFkqpBk">https://youtu.be/LB3-IFkqpBk</a>	<b>HINTS</b> *45-60 minutes at most to compete, leave unfinished work for tomorrow
<b>NEXT STEPS</b> *Dreambox – lessons need to be complete otherwise unfinished work will reset *Math Games – student choice	<b>NEXT STEPS</b> *Dreambox – lessons need to be complete otherwise unfinished work will reset *Math Games – student choice	<b>NEXT STEPS</b> *Dreambox – lessons need to be complete otherwise unfinished work will reset *Math Games – student choice	<b>NEXT STEPS</b> *Dreambox – lessons need to be complete otherwise unfinished work will reset *Math Games – student choice	<b>NEXT STEPS</b> *Dreambox – lessons need to be complete otherwise unfinished work will reset *Math Games – student choice

## **Launch Explore Summarize (LES)**

<https://tools4ncteachers.com/resources/4-fourth-grade/additional-resources/cluster-1/brieflaunchexplorediscusslesson.pdf>

**Launch** using 3 Reads protocol so students access the context and content to explore the Big Idea concept or skill in the problem.

**Explore** allows students to explore a problem, which will help them to analyze and generalize a concept or skill in the problem.

**Summarize** encourages students to share their discoveries about a concept or skill in the problem.

### LAUNCH (5 minutes)

\*First read the story problem, instead of saying any number say “some” (instead of 10 apples, say some apples)

“*What is the Problem About?*”

\*Second read the story problem as it is written and focus on the question or what your solution will show

“*What is the Question?*”

\*Third read the story problem as it is written and focus on the information you will need for your strategy and your solution

“*What is the important Information?*”

### EXPLORE (10 minutes)

Student answers the question using as many strategies as they can within the time limit

### SUMMARIZE (5 minutes)

Student explains their thinking for one or all strategies they used to answer the question

## **3 Reads Protocol**

<http://www.fosteringmathpractices.com/wp-content/uploads/2019/05/3-Reads-Student-Notetaker-Template-.pdf>

<b>Read the Problem 3 Times</b>	
	<b>1<sup>st</sup> Read</b> What is the problem about?
	<b>2<sup>nd</sup> Read</b> What is the question?
	<b>3<sup>rd</sup> Read</b> What is the important Information?

Is the problem about **Get more (+)**, or **Get more of even groups (x)**

Is the problem about **Give away (-)**, or **Give away even groups (÷)**

Is the problem about **Bring together (+)**, or **Bring together even groups (x)**

Is the problem about **Take apart/sort (-)**, or **Take apart/sort even groups (÷)**

Is the problem about **Compare**, or **Compare even groups**

## LAUNCH, EXPLORE, SUMMARIZE (LES) STORY PROBLEMS

### **Monday**

Clark and his friends Noah, Jamal, and Asad shared two medium cheese pizzas and sparkling juice. Each medium cheese pizza had six slices. There was enough sparkling juice for 8 full cups of sparkling juice. To share the cheese pizza and juice fairly, how many slices of pizza and full cups of juice will everyone receive?

### **Tuesday**

Eduardo and his sister Alexa invited two friends over for lunch to eat tacos al pastor and drink horchatas. There was only enough horchata for one full glass for each person, but there were 16 tacos al pastor to eat. If all tacos were shared fairly, how many tacos al pastor will each person eat with their full glass of horchata?

### **Wednesday**

Boyka invited three friends over to eat fresh Paska baked by her family. After other family members took some to eat, there were still 14 whole slices left for Boyka and her friends. If Boyka and her friends take the same number of whole slices, how many whole slices did each person get to eat?

### **Thursday**

Maryan and her family enjoy cooking and were making Sambusa at home. Maryan invited two friends to eat with her family and together eight people sat down to eat all 32 Sambusa. If each person ate the same amount and all Sambusa were eaten, how many Sambusa did each person get to eat?

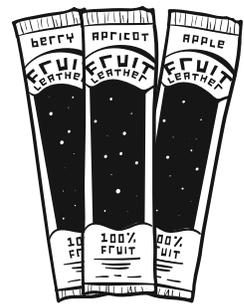
### **Friday**

Naomi and her friend were making macaroni and cheese. Each box of macaroni and cheese makes three full bowls. If Naomi and her friend make two boxes of macaroni and cheese, how many full bowls will they each be able to eat?

 **Fair Shares** page 1 of 2

Work with a partner to solve at least two of the three problems on this page and the next. Use numbers, words, and labeled sketches to show all of your thinking. If you solve all three and have extra time, start the challenge problem on the next page.

- 1** Sally and her friends Vanessa, Ellie, and Helen have 3 strips of dried fruit to share. Each strip is 1" wide and 12" long. If the 4 girls share the strips fairly, how much will they each get?



- 2** One Saturday morning, Eduardo and his sister invited their two friends over to play. Before long, things were getting pretty noisy around the house, and Mrs. Ortega said, "If the four of you will pick up all the toys downstairs, I'll give you \$3.00 to spend at the corner store." If the 4 kids share the \$3.00 fairly, how much money will they each get?



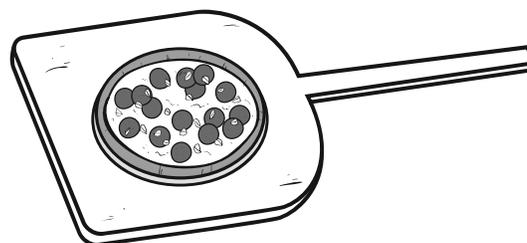
*(continued on next page)*

**Fair Shares** page 2 of 2

- 3** The gym at our school is open every evening from 5:00 to 8:00. If 4 different basketball teams want to use the gym on Thursday evening and they agree to split the time equally, how much practice time will each team get?



- 4** **CHALLENGE** The coach took us out for pizza after our last game. There were 14 of us, so we had to split up and sit at different tables. Six of us sat at one table and got 4 medium pizzas to share equally. The other 8 of us sat at a different table and got 6 medium pizzas to share equally. Afterwards, Keira said it wasn't fair because some kids got more pizza than others. Do you agree with her? Use numbers, words, or labeled sketches to explain your answer.





## Share & Share Alike

**1** Solve each problem below. Show your work using numbers, labeled sketches, or words.

- a** Carmen has four cookies. Her friend Elisa joins her. Carmen shares her cookies evenly with her friend. How many cookies does each girl each get?
- b** Carmen and Elisa are about to eat the cookies when Sam and Michael join them. Carmen and Elisa share the cookies evenly with Sam and Michael. How many cookies does each person get?
- c** The group is about to eat their cookies when four more friends join them. Carmen collects the cookies and divides them evenly between all eight people. How many cookies does each person get?
- d** The cookies are eaten by the eight people. Imagine, though, that eight more people joined the group before they ate the cookies, and they all shared the cookies evenly. How much would each person have been given?

**2** Fill in the blank for each equation below.

**a**  $20 \times 35 = 2 \times \underline{\hspace{2cm}}$

**b**  $10 \times \underline{\hspace{2cm}} = 10 \times 5 \times 3$

**c**  $\underline{\hspace{2cm}} \times 30 = 9 \times 100$



## Fractions & Mixed Numbers page 1 of 2

- 1** Change each of the fractions below into a mixed number. Use a labeled sketch and words to explain your answers. Use your fraction pieces to help if you want.

<p><b>ex</b> <math>\frac{7}{4} = 1\frac{3}{4}</math></p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td><math>\frac{1}{4}</math></td><td><math>\frac{1}{4}</math></td><td><math>\frac{1}{4}</math></td><td><math>\frac{1}{4}</math></td><td><math>\frac{1}{4}</math></td><td><math>\frac{1}{4}</math></td><td><math>\frac{1}{4}</math></td> </tr> <tr> <td colspan="4" style="text-align: center;"> </td> <td><math>\frac{1}{4}</math></td><td><math>\frac{1}{4}</math></td><td><math>\frac{1}{4}</math></td> </tr> </tbody> </table>	$\frac{1}{4}$					$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$						
$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$									
				$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$									
<p><b>a</b> <math>\frac{9}{8} =</math> <span style="background-color: #cccccc; display: inline-block; width: 40px; height: 20px; vertical-align: middle;"></span></p>															
<p><b>b</b> <math>\frac{19}{16} =</math> <span style="background-color: #cccccc; display: inline-block; width: 40px; height: 20px; vertical-align: middle;"></span></p>															
<p><b>c</b> <math>\frac{10}{4} =</math> <span style="background-color: #cccccc; display: inline-block; width: 40px; height: 20px; vertical-align: middle;"></span></p>															

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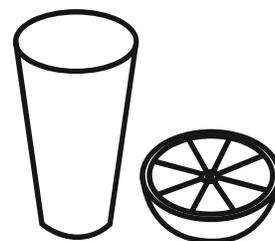
**Fractions & Mixed Numbers** page 2 of 2

**2** For each of the problems on this page:

- Solve the problem and show your thinking with numbers, words, or labeled sketches. Use your fraction pieces to help if you want.
  - If the answer turns out to be an improper fraction (like  $\frac{3}{2}$  or  $\frac{7}{4}$ ) rename it as a mixed number (like  $1\frac{1}{2}$  or  $1\frac{3}{4}$ ).
- a** Carlos and his mom went out on a bike ride. They rode  $\frac{5}{8}$  of a mile to the park, and then  $\frac{5}{8}$  of a mile back home. How far did they ride in all?



- b** It takes  $\frac{3}{4}$  of a cup of orange juice to make 1 smoothie. Erin wants to make 2 smoothies. How much orange juice will she need?



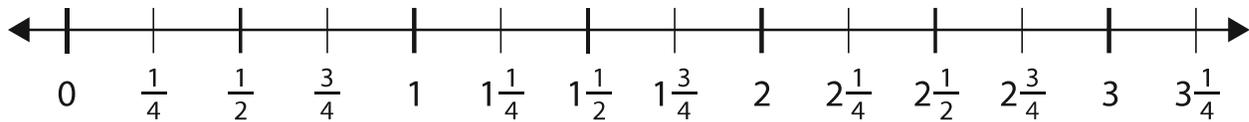
**3** Change each of the mixed numbers below into a fraction. Use your fraction pieces to help.

<b>ex</b> $1\frac{3}{4} = \frac{7}{4}$	<b>a</b> $1\frac{3}{8} =$	<b>b</b> $1\frac{5}{16} =$
<b>c</b> $2\frac{1}{2} =$	<b>d</b> $2\frac{2}{4} =$	<b>e</b> $1\frac{7}{8} =$



## Fractions & Mixed Numbers on a Number Line

1 Use the number line to answer the questions below.



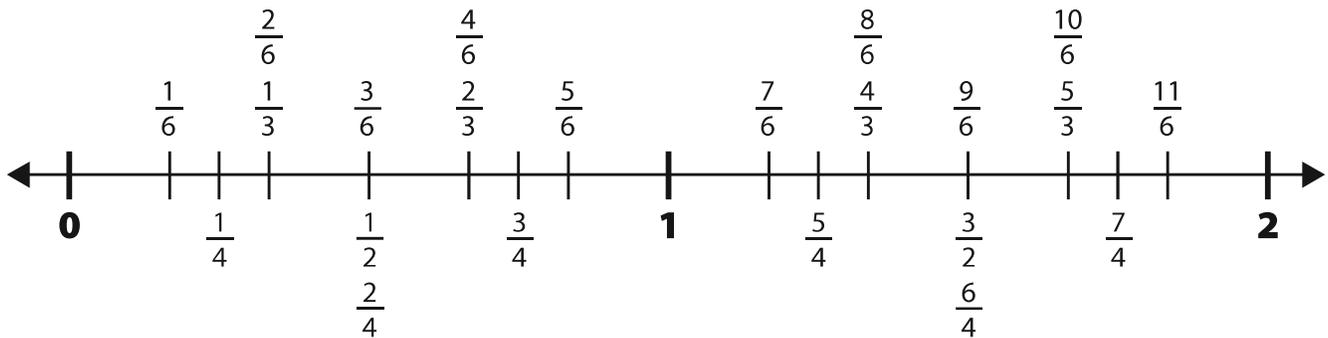
<b>ex</b>	What improper fraction is equal to $2\frac{1}{4}$ ? In other words, how many fourths are in two and one-fourth?	$\frac{9}{4}$
<b>ex</b>	What number is halfway between 2 and 3?	$2\frac{1}{2}$
<b>a</b>	What improper fraction is equal to $1\frac{1}{2}$ ? In other words, how many halves are in one and one-half?	
<b>b</b>	What mixed number is equal to $\frac{6}{4}$ ?	
<b>c</b>	Which is greater, $\frac{5}{4}$ or $1\frac{1}{2}$ ?	
<b>d</b>	What mixed number is equal to $\frac{13}{4}$ ?	
<b>e</b>	What improper fraction is equal to $2\frac{1}{2}$ ? In other words, how many halves are in two and one-half?	
<b>f</b>	Which is greater, $1\frac{3}{4}$ or $\frac{8}{4}$ ?	

### Challenge

- 2 What number is halfway between 0 and 1?
- 3 What number is halfway between 0 and 3?
- 4 What number is halfway between 0 and 17?



# Fractions & Division Tables



1 Write a greater than (>), less than (<), or equal sign in the circle to complete each equation below. Use the number line to help figure out which fraction is greater.

<b>ex</b> $\frac{1}{4} < \frac{1}{2}$	<b>a</b> $\frac{3}{4} \square \frac{5}{6}$	<b>b</b> $\frac{2}{3} \square \frac{4}{6}$
<b>c</b> $\frac{5}{3} \square \frac{5}{4}$	<b>d</b> $\frac{2}{3} \square \frac{3}{2}$	<b>e</b> $\frac{1}{3} \square \frac{3}{6}$

2 Complete the division tables below.

**ex**

÷	10	4	18	6	16	12	14	8
2	5	2	9	3	8	6	7	4

**a**

÷	70	90	20	80	30	50	60	40
10								

**b**

÷	15	30	35	25	10	45	20	40
5								

**c**

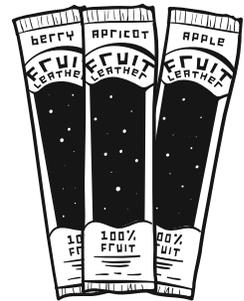
÷	8	20	16	36	24	28	12	32
4								



## Partes iguales página 1 de 2

Trabaja con un compañero para solucionar al menos dos de los tres problemas en esta página y la siguiente. Usa números, palabras y dibujos con anotaciones para mostrar todo tu razonamiento. Si resuelves los tres problemas y tienes tiempo adicional, comienza el problema de reto en la siguiente página.

- 1 Sally y sus amigas Vanessa, Ellie y Helen tienen 3 tiras de fruta seca para compartir. Cada tira tiene 1" de ancho y 12" de largo. Si las 4 niñas comparten las tiras por igual, ¿cuánto recibirá cada una?



- 2 Una sábado por la mañana, Eduardo y su hermana invitaron a sus dos amigos a jugar. En poco tiempo, la casa comenzó a ponerse ruidosa y la Sra. Ortega dijo: “Si ustedes cuatro recogen todos los juguetes allá abajo, les daré \$3.00 para gastar en la tienda de la esquina”. Si los 4 niños comparten los \$3.00 en partes iguales, ¿cuánto dinero recibirá cada uno?



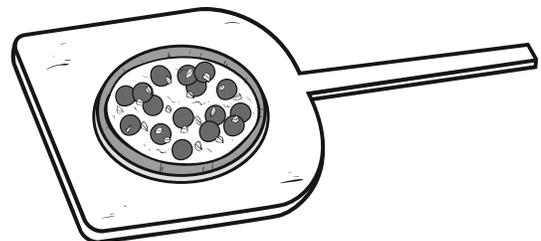
*(continúa en la página siguiente)*

**Partes iguales** página 2 de 2

- 3** El gimnasio en nuestra escuela está abierto todas las tardes de 5:00 a 8:00. Si 4 equipos diferentes de básquetbol quieren usar el gimnasio el jueves por la tarde y están de acuerdo en dividir el tiempo en partes iguales, ¿cuánto tiempo de práctica tendrá cada equipo?



- 4** **RETO** El entrenador nos llevó a comer pizza después de nuestro último juego. Éramos 14, así que tuvimos que dividirnos y sentarnos en mesas separadas. Seis de nosotros nos sentamos en una mesa y nos dieron 4 pizzas medianas para compartirlas por igual. Los otros 8 se sentaron en una mesa aparte y les dieron 6 pizzas medianas para compartirlas por igual. Después, Keira dijo que no era justo porque algunos niños recibieron más pizza que otros. ¿Estás de acuerdo con ella? ¿Por qué? Usa números, palabras o dibujos con anotaciones para explicar tu respuesta.





## Compartir y compartir

- 1** Resuelve cada problema a continuación. Muestra tu trabajo mediante dibujos con anotaciones, números o palabras.
- a** Carmen tiene cuatro galletas. Su amiga Elisa se reúne con ella. Carmen comparte sus galletas en partes iguales con su amiga. ¿Cuántas galletas recibe cada una de las niñas?
- b** Carmen y Elisa están a punto de comer las galletas cuando Sam y Michael se les unen. Carmen y Elisa comparten las galletas en partes iguales con Sam y Michael. ¿Cuántas galletas recibe cada persona?
- c** El grupo está a punto de comer las galletas cuando cuatro amigos más se les unen. Carmen recoge las galletas y las divide en partes iguales entre las 8 personas. ¿Cuántas galletas recibe cada persona?
- d** Las ocho personas se comen las galletas. Imagínate, sin embargo, que se unieran ocho personas más al grupo antes de que se comieran las galletas, y que todos compartieran las galletas en partes iguales. ¿Cuánto habría recibido cada persona?
- 2** Completa el espacio en blanco para cada ecuación a continuación.
- a**  $20 \times 35 = 2 \times \underline{\hspace{2cm}}$
- b**  $10 \times \underline{\hspace{2cm}} = 10 \times 5 \times 3$
- c**  $\underline{\hspace{2cm}} \times 30 = 9 \times 100$



## Fracciones y números mixtos página 1 de 2

- 1** Convierte cada una de las fracciones a continuación en un número mixto. Utiliza un dibujo con anotaciones y palabras para explicar tus respuestas. Si quieres, usa tus piezas de fracciones para ayudarte.

<p><b>ej</b> <math>\frac{7}{4} = 1\frac{3}{4}</math></p>	
<p><b>a</b> <math>\frac{9}{8} =</math> <span style="background-color: #cccccc; display: inline-block; width: 40px; height: 20px; vertical-align: middle;"></span></p>	
<p><b>b</b> <math>\frac{19}{16} =</math> <span style="background-color: #cccccc; display: inline-block; width: 40px; height: 20px; vertical-align: middle;"></span></p>	
<p><b>c</b> <math>\frac{10}{4} =</math> <span style="background-color: #cccccc; display: inline-block; width: 40px; height: 20px; vertical-align: middle;"></span></p>	

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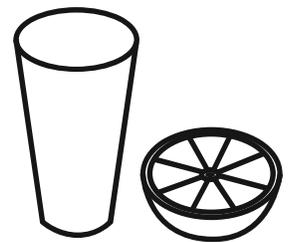
**Fracciones y números mixtos** página 2 de 2

**2** Para cada uno de los problemas en esta página:

- Resuelve el problema y muestra tu razonamiento con números, palabras o dibujos con anotaciones. Si quieres, usa tus piezas de fracciones para ayudarte.
  - Si la respuesta resulta ser una fracción impropia (como  $\frac{3}{2}$  o  $\frac{7}{4}$ ) vuelve a escribirla como un número mixto (como  $1\frac{1}{2}$  o  $1\frac{3}{4}$ ).
- a** Carlos y su mamá salieron a un paseo en bicicleta. Manejaron  $\frac{5}{8}$  de una milla hacia el parque, y luego  $\frac{5}{8}$  de una milla de vuelta a casa. ¿Qué tan lejos manejaron en total?



- b** Se necesita  $\frac{3}{4}$  de taza de jugo de naranja para hacer 1 granizado. Erin quiere hacer 2 granizados. ¿Cuánto jugo de naranja necesitará?



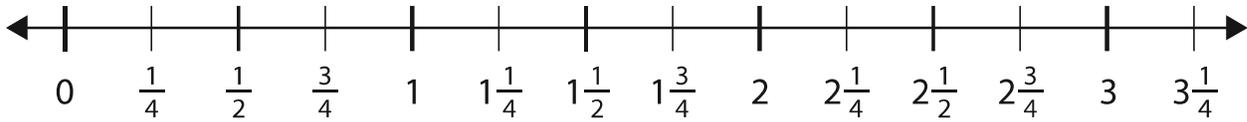
**3** Convierte cada uno de los números mixtos a continuación en una fracción. Usa tus piezas de fracción para ayudarte.

<b>ej</b> $1\frac{3}{4} = \frac{7}{4}$	<b>a</b> $1\frac{3}{8} =$	<b>b</b> $1\frac{5}{16} =$
<b>c</b> $2\frac{1}{2} =$	<b>d</b> $2\frac{2}{4} =$	<b>e</b> $1\frac{7}{8} =$



## Fracciones y números mixtos en una recta numérica

1 Usa la recta numérica para responder las preguntas a continuación.



<b>ej</b>	¿Cuál fracción impropia es igual a $2\frac{1}{4}$ ? En otras palabras, ¿cuántos cuartos hay en dos y un cuarto?	$\frac{9}{4}$
<b>ej</b>	¿Qué número se encuentra a la mitad entre 2 y 3?	$2\frac{1}{2}$
<b>a</b>	¿Qué fracción impropia es equivalente a $1\frac{1}{2}$ ? En otras palabras, ¿cuántas mitades hay en uno y medio?	
<b>b</b>	¿Qué número mixto es equivalente a $\frac{6}{4}$ ?	
<b>c</b>	¿Qué es mayor, $\frac{5}{4}$ o $1\frac{1}{2}$ ?	
<b>d</b>	¿Qué número mixto es igual a $\frac{13}{4}$ ?	
<b>e</b>	¿Qué fracción impropia es igual a $2\frac{1}{2}$ ? En otras palabras, ¿cuántas mitades hay en dos y medio?	
<b>f</b>	¿Qué es mayor, $1\frac{3}{4}$ o $\frac{8}{4}$ ?	

### Reto

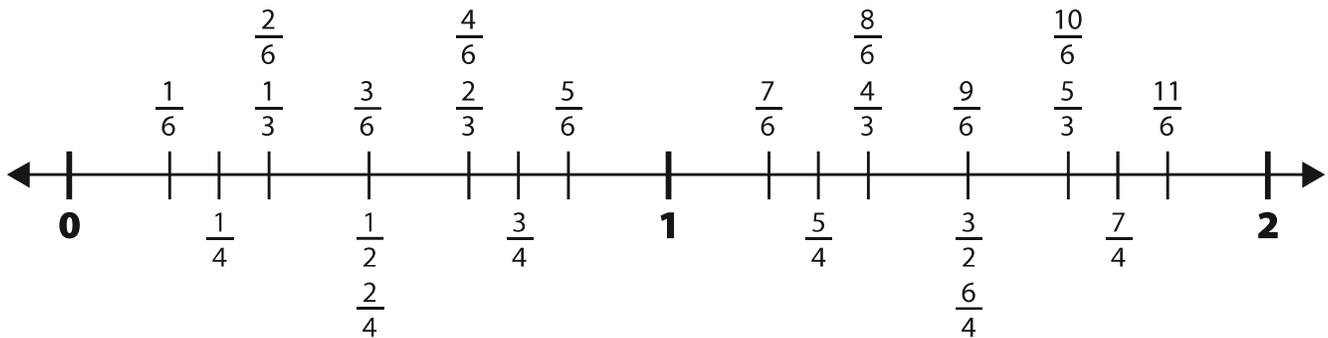
2 ¿Qué número se encuentra a la mitad entre 0 y 1?

3 ¿Qué número se encuentra a la mitad entre 0 y 3?

4 ¿Qué número se encuentra a la mitad entre 0 y 17?



## Tablas de división y fracciones



1 Escribe un signo de mayor que (>), menor que (<) o igual en el círculo para completar cada ecuación a continuación. Usa la recta numérica para ayudarte a descubrir cuál fracción es la mayor.

<b>ej</b> $\frac{1}{4} < \frac{1}{2}$	<b>a</b> $\frac{3}{4} \square \frac{5}{6}$	<b>b</b> $\frac{2}{3} \square \frac{4}{6}$
<b>c</b> $\frac{5}{3} \square \frac{5}{4}$	<b>d</b> $\frac{2}{3} \square \frac{3}{2}$	<b>e</b> $\frac{1}{3} \square \frac{3}{6}$

2 Completa las tablas de división a continuación.

<b>ej</b>	÷	10	4	18	6	16	12	14	8
	2	5	2	9	3	8	6	7	4

<b>a</b>	÷	70	90	20	80	30	50	60	40
	10								

<b>b</b>	÷	15	30	35	25	10	45	20	40
	5								

<b>c</b>	÷	8	20	16	36	24	28	12	32
	4								

NAME \_\_\_\_\_

DATE \_\_\_\_\_

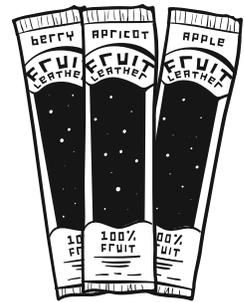
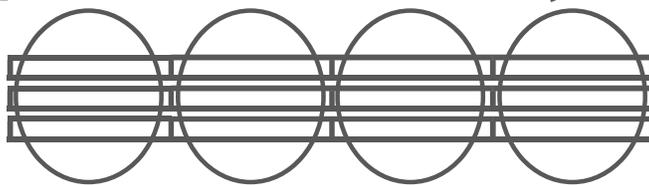

**Fair Shares** page 1 of 2

Work with a partner to solve at least two of the three problems on this page and the next. Use numbers, words, and labeled sketches to show all of your thinking. If you solve all three and have extra time, start the challenge problem on the next page.

- 1** Sally and her friends Vanessa, Ellie, and Helen have 3 strips of dried fruit to share. Each strip is 1" wide and 12" long. If the 4 girls share the strips fairly, how much will they each get?

$\frac{3}{4}$  of a strip each; work will vary.

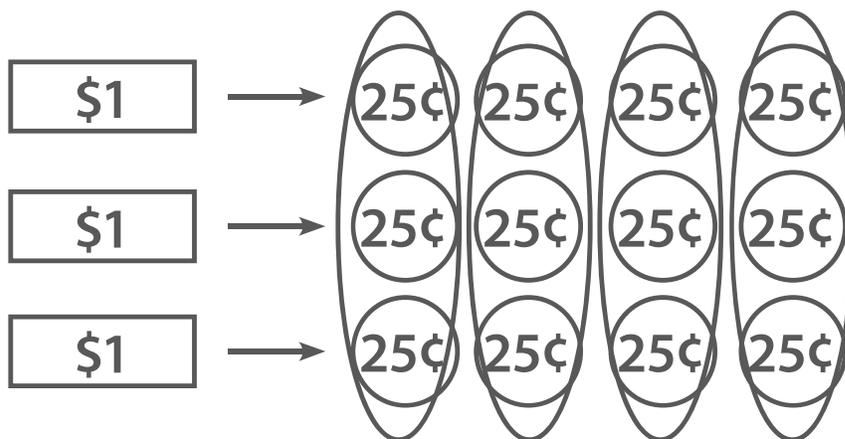
Example:



If you divide each strip into fourths, you can see each girl gets 3 fourths.

- 2** One Saturday morning, Eduardo and his sister invited their two friends over to play. Before long, things were getting pretty noisy around the house, and Mrs. Ortega said, "If the four of you will pick up all the toys downstairs, I'll give you \$3.00 to spend at the corner store." If the 4 kids share the \$3.00 fairly, how much money will they each get?

\$0.75 each; work will vary. Example:



If you trade in each dollar for 4 quarters, that's 12 quarters.

$12 \div 4 = 3$  quarters each, and that's 75¢.

(continued on next page)

NAME \_\_\_\_\_

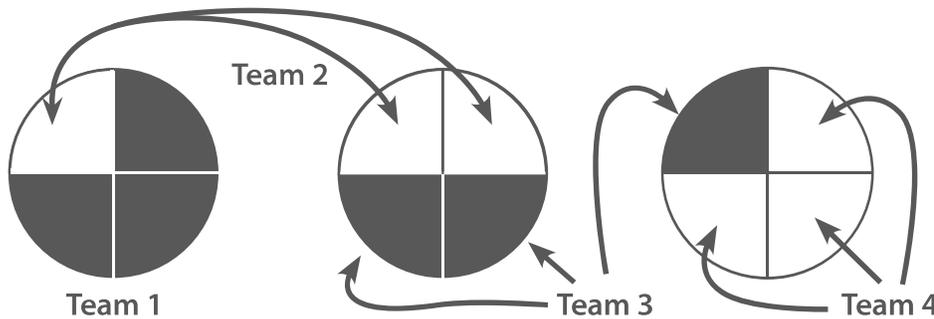
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**Fair Shares** page 2 of 2

- 3** The gym at our school is open every evening from 5:00 to 8:00. If 4 different basketball teams want to use the gym on Thursday evening and they agree to split the time equally, how much practice time will each team get?

**$\frac{3}{4}$  of an hour or 45 minutes each;**

work will vary. Example: from 5:00 to 8:00 is 3 hours,

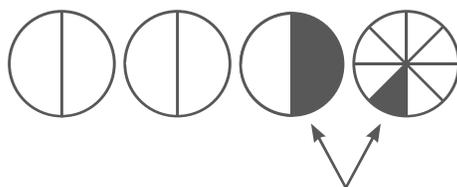


If you split each hour into fourths, you can see that each team gets  $\frac{3}{4}$  of an hour, or 45 minutes.

- 4 CHALLENGE** The coach took us out for pizza after our last game. There were 14 of us, so we had to split up and sit at different tables. Six of us sat at one table and got 4 medium pizzas to share equally. The other 8 of us sat at a different table and got 6 medium pizzas to share equally. Afterwards, Keira said it wasn't fair because some kids got more pizza than others. Do you agree with her? Use numbers, words, or labeled sketches to explain your answer.

**Yes; explanations will vary.**

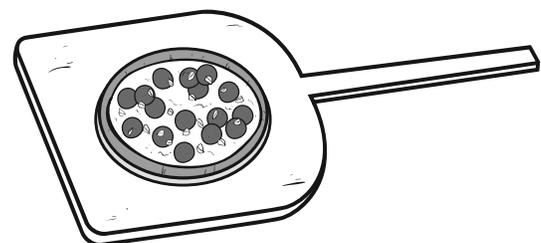
**Example: Each of the 6 kids who sat at the first table got  $\frac{4}{6}$  or  $\frac{2}{3}$  of a pizza. The 8 kids who sat at the second table each got  $\frac{3}{4}$  of a pizza, and  $\frac{3}{4} > \frac{2}{3}$ .**



Each kid gets  $\frac{1}{2}$  and  $\frac{1}{6}$ . that's the same as  $\frac{3}{6} + \frac{1}{6} = \frac{4}{6} = \frac{2}{3}$



Each kid gets  $\frac{1}{2}$  and  $\frac{1}{4}$ . that's the same as  $\frac{3}{4}$



NAME \_\_\_\_\_

DATE \_\_\_\_\_



## Share & Share Alike

**1** Solve each problem below. Show your work using numbers, labeled sketches, or words.

- a** Carmen has four cookies. Her friend Elisa joins her. Carmen shares her cookies evenly with her friend. How many cookies does each girl each get?

**2 cookies each; work will vary.**

- b** Carmen and Elisa are about to eat the cookies when Sam and Michael join them. Carmen and Elisa share the cookies evenly with Sam and Michael. How many cookies does each person get?

**1 cookie each; work will vary.**

- c** The group is about to eat their cookies when four more friends join them. Carmen collects the cookies and divides them evenly between all eight people. How many cookies does each person get?

**$\frac{1}{2}$  cookie each; work will vary.**

- d** The cookies are eaten by the eight people. Imagine, though, that eight more people joined the group before they ate the cookies, and they all shared the cookies evenly. How much would each person have been given?

**$\frac{1}{4}$  cookie each; work will vary.**

**2** Fill in the blank for each equation below.

**a**  $20 \times 35 = 2 \times \underline{350}$

**b**  $10 \times \underline{15} = 10 \times 5 \times 3$

**c**  $\underline{30} \times 30 = 9 \times 100$

NAME \_\_\_\_\_

DATE \_\_\_\_\_



# Fractions & Mixed Numbers page 1 of 2

**1** Change each of the fractions below into a mixed number. Use a labeled sketch and words to explain your answers. Use your fraction pieces to help if you want.

<p><b>ex</b> <math>\frac{7}{4} = 1\frac{3}{4}</math></p>	<table border="1" style="margin: auto;"> <tr> <td style="padding: 2px 5px;"><math>\frac{1}{4}</math></td> </tr> <tr> <td colspan="3" style="padding: 2px 5px;"> </td> <td style="padding: 2px 5px;"><math>\frac{1}{4}</math></td> <td style="padding: 2px 5px;"><math>\frac{1}{4}</math></td> <td style="padding: 2px 5px;"><math>\frac{1}{4}</math></td> <td></td> </tr> </table>	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$				$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$																	
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			$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$																										
<p><b>a</b> <math>\frac{9}{8} = 1\frac{1}{8}</math></p>	<p style="text-align: center;"><b>Work will vary. Examples shown:</b></p> <table border="1" style="margin: auto;"> <tr> <td colspan="10" style="text-align: center;"><math>\frac{8}{8}</math></td> </tr> <tr> <td style="padding: 2px 5px;"><math>\frac{1}{8}</math></td> </tr> <tr> <td colspan="9" style="padding: 2px 5px;">1</td> <td style="padding: 2px 5px;"><math>\frac{1}{8}</math></td> </tr> </table> <p style="text-align: center;"><math>\frac{8}{8}</math> is the same as 1 whole, and then there's 1 extra eighth.</p>	$\frac{8}{8}$										$\frac{1}{8}$	1									$\frac{1}{8}$									
$\frac{8}{8}$																															
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$																						
1									$\frac{1}{8}$																						
<p><b>b</b> <math>\frac{19}{16} = 1\frac{3}{16}</math></p>	<table border="1" style="margin: auto;"> <tr> <td style="padding: 2px 5px;"><math>\frac{16}{16}</math></td> <td style="padding: 2px 5px;"><math>\frac{1}{16}</math></td> <td style="padding: 2px 5px;"><math>\frac{1}{16}</math></td> <td style="padding: 2px 5px;"><math>\frac{1}{16}</math></td> </tr> <tr> <td colspan="4" style="padding: 2px 5px;">1</td> </tr> </table> <p style="text-align: center;"><math>\frac{16}{16} = 1</math>  <math>19 - 16 = 3</math>, so there are <math>\frac{3}{16}</math> left.</p>	$\frac{16}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	1																									
$\frac{16}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$																												
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<p><b>c</b> <math>\frac{10}{4} = 2\frac{2}{4}</math>  or  <math>2\frac{1}{2}</math></p>	<table border="1" style="margin: auto;"> <tr> <td style="padding: 2px 5px;"><math>\frac{4}{4}</math></td> <td style="padding: 2px 5px;"><math>\frac{4}{4}</math></td> <td style="padding: 2px 5px;"><math>\frac{1}{4}</math></td> <td style="padding: 2px 5px;"><math>\frac{1}{4}</math></td> </tr> <tr> <td colspan="2" style="padding: 2px 5px;">1</td> <td colspan="2" style="padding: 2px 5px;">1</td> </tr> </table> <p style="text-align: center;">There are <math>\frac{4}{4}</math> in 1 whole, so that's <math>\frac{8}{4}</math> for 2 wholes, and <math>\frac{2}{4}</math> left over after that.</p>	$\frac{4}{4}$	$\frac{4}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	1		1																							
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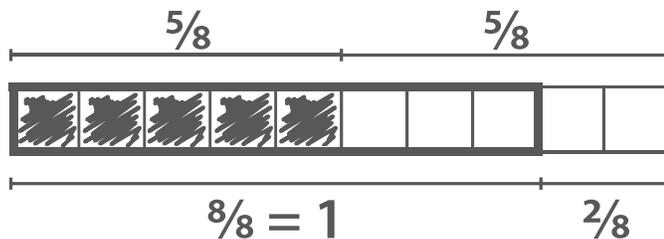
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**Fractions & Mixed Numbers** page 2 of 2**2** For each of the problems on this page:

- Solve the problem and show your thinking with numbers, words, or labeled sketches. Use your fraction pieces to help if you want.
- If the answer turns out to be an improper fraction (like  $\frac{3}{2}$  or  $\frac{7}{4}$ ) rename it as a mixed number (like  $1\frac{1}{2}$  or  $1\frac{3}{4}$ ).

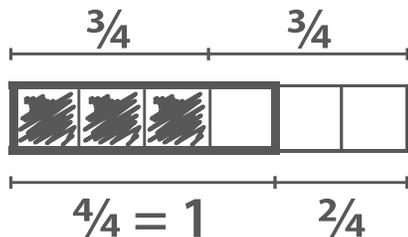
- a** Carlos and his mom went out on a bike ride. They rode  $\frac{5}{8}$  of a mile to the park, and then  $\frac{5}{8}$  of a mile back home. How far did they ride in all?

 **$1\frac{2}{8}$  or  $1\frac{1}{4}$  miles; work will vary. Example:**

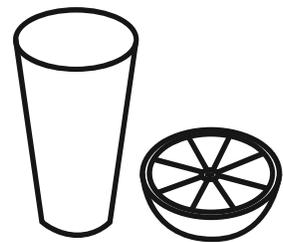
$$1 + \frac{2}{8} = \frac{10}{8} = 1\frac{1}{4}$$



- b** It takes  $\frac{3}{4}$  of a cup of orange juice to make 1 smoothie. Erin wants to make 2 smoothies. How much orange juice will she need?

 **$\frac{6}{4}$  or  $1\frac{1}{2}$  cups; work will vary. Example:**

$$1 + \frac{2}{4} = \frac{6}{4} = 1\frac{1}{2}$$

**3** Change each of the mixed numbers below into a fraction. Use your fraction pieces to help.

<b>ex</b> $1\frac{3}{4} = \frac{7}{4}$	<b>a</b> $1\frac{3}{8} = \frac{11}{8}$	<b>b</b> $1\frac{5}{16} = \frac{21}{16}$
<b>c</b> $2\frac{1}{2} = \frac{5}{2}$	<b>d</b> $2\frac{2}{4} = \frac{10}{4}$	<b>e</b> $1\frac{7}{8} = \frac{15}{8}$

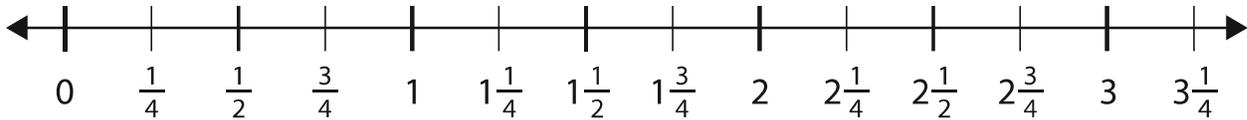
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## Fractions & Mixed Numbers on a Number Line

1 Use the number line to answer the questions below.



<b>ex</b>	What improper fraction is equal to $2\frac{1}{4}$ ? In other words, how many fourths are in two and one-fourth?	$\frac{9}{4}$
<b>ex</b>	What number is halfway between 2 and 3?	$2\frac{1}{2}$
<b>a</b>	What improper fraction is equal to $1\frac{1}{2}$ ? In other words, how many halves are in one and one-half?	$\frac{3}{2}$
<b>b</b>	What mixed number is equal to $\frac{6}{4}$ ?	<b><math>1\frac{3}{4}</math> or <math>1\frac{1}{2}</math></b>
<b>c</b>	Which is greater, $\frac{5}{4}$ or $1\frac{1}{2}$ ?	<b><math>1\frac{1}{2}</math></b>
<b>d</b>	What mixed number is equal to $\frac{13}{4}$ ?	<b><math>3\frac{1}{4}</math></b>
<b>e</b>	What improper fraction is equal to $2\frac{1}{2}$ ? In other words, how many halves are in two and one-half?	$\frac{5}{2}$
<b>f</b>	Which is greater, $1\frac{3}{4}$ or $\frac{8}{4}$ ?	$\frac{8}{4}$

### Challenge

2 What number is halfway between 0 and 1?  $\frac{1}{2}$

3 What number is halfway between 0 and 3?  $1\frac{1}{2}$

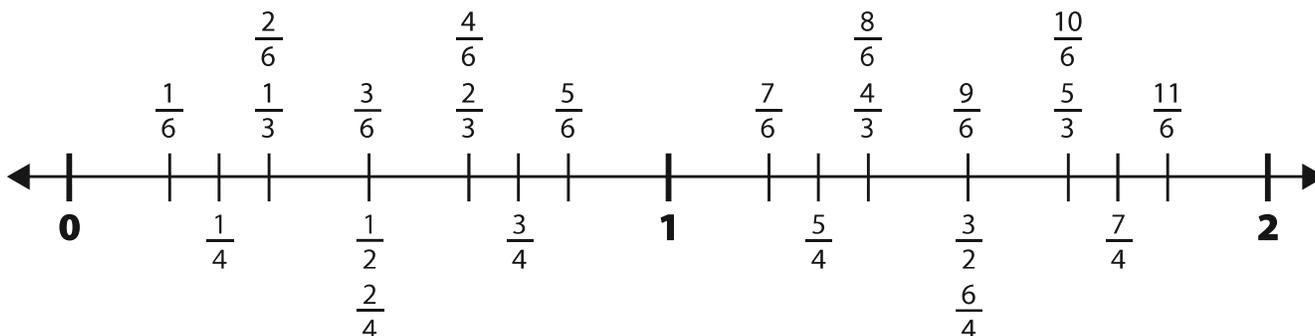
4 What number is halfway between 0 and 17?  $8\frac{1}{2}$

NAME \_\_\_\_\_

DATE \_\_\_\_\_



# Fractions & Division Tables



1 Write a greater than (>), less than (<), or equal sign in the circle to complete each equation below. Use the number line to help figure out which fraction is greater.

<b>ex</b> $\frac{1}{4} < \frac{1}{2}$	<b>a</b> $\frac{3}{4} < \frac{5}{6}$	<b>b</b> $\frac{2}{3} = \frac{4}{6}$
<b>c</b> $\frac{5}{3} > \frac{5}{4}$	<b>d</b> $\frac{2}{3} < \frac{3}{2}$	<b>e</b> $\frac{1}{3} < \frac{3}{6}$

2 Complete the division tables below.

**ex**

÷	10	4	18	6	16	12	14	8
2	5	2	9	3	8	6	7	4

**a**

÷	70	90	20	80	30	50	60	40
10	<b>7</b>	<b>9</b>	<b>2</b>	<b>8</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>4</b>

**b**

÷	15	30	35	25	10	45	20	40
5	<b>3</b>	<b>6</b>	<b>7</b>	<b>5</b>	<b>2</b>	<b>9</b>	<b>4</b>	<b>8</b>

**c**

÷	8	20	16	36	24	28	12	32
4	<b>2</b>	<b>5</b>	<b>4</b>	<b>9</b>	<b>6</b>	<b>7</b>	<b>3</b>	<b>8</b>