Today's Materials

- calculator
- pencil
- notebook
- glue
- highlighter

Proportional Relationships and Equations

Lesson 4

CCSS Standards: Building on	• 5.NBT.B.7
CCSS Standards: Addressing	• 7.RP.A.2 • 7.RP.A.2.c

Let’s write equations describing proportional relationships!

Today's Go

- ❑ I can write the constant of proportionality as an entry in a table.
- ❑ I can write an equation of the form $y = kx$ to represent a proportional relationship described by a table or story.

Number Talk: **Division**

Warm Up

Find each quotient mentally.

$645 \div 100$

$645 \div 50$

$48.6 \div 30$

$48.6 \div x$

Feeding a Crowd, Revisited

Activity 4.2

- 5 Practices
- Compare and Connect

This activity revisits a context you worked on earlier this unit.

Begin working on your own. (3 min.)

Share your thinking as a team.

A recipe says that 2 cups of dry rice will serve 6 people.

Write an equation that shows the relationship in the table.

cups of dry rice	# of people
1	
2	6
3	
12	
43	
x	

A recipe says that 6 spring rolls will serve 3 people.

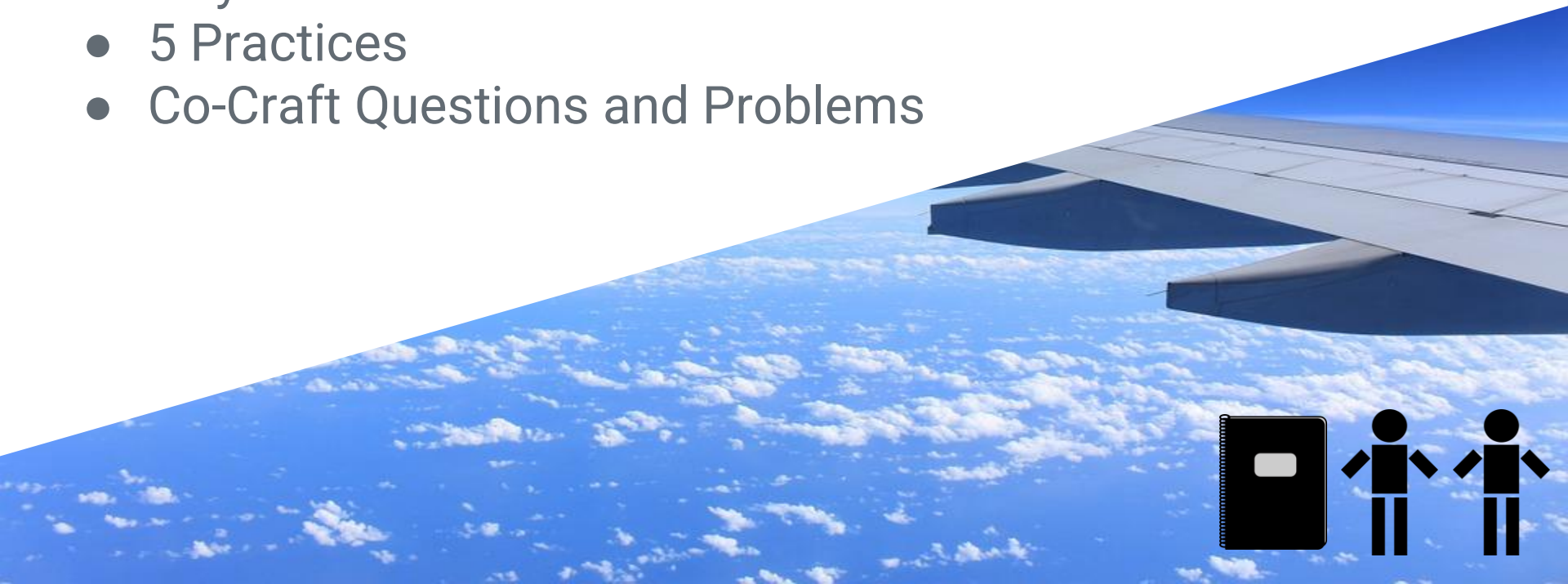
Write an equation that shows the relationship in the table.

# spring rolls	# of people
1	
6	3
10	
16	
25	
n	

Denver to Chicago

Activity 4.3

- 5 Practices
- Co-Craft Questions and Problems



A plane flew at a constant speed between Denver and Chicago. It took the plane 1.5 hours to fly 915 miles.

Work as a team to complete the activity!

time (hours)	distance (miles)	speed (miles per hour)
1		
1.5	915	
2		
2.5		
t		

Write an equation that relates time (t) and distance (d).

A rocky planet orbits Proxima Centauri, a star that is about 1.3 parsecs from Earth. This planet is the closest planet outside of our solar system.

1. How long does it take light from Proxima Centauri to reach the Earth?
2. There are two twins. One twin leaves on a spaceship to explore the planet near Proxima Centauri traveling at 90% of the speed of light, while the other twin stays home on Earth. How much does the twin on Earth age while the other twin travels to Proxima Centauri?

Revisiting Bread Dough
(optional)

Activity 4.4

- Think, Pair, Share
- Three Reads

This activity revisits a context you worked on earlier this unit.

Begin working on your own. (2 min.)

Share your thinking as a team.

- Discuss your thinking until you reach an agreement.

What was your equation for the proportional relationship?

How could you use the relationship to answer Question #3?

honey (tbsp)	flour (c)
1	
8	10
16	
30	
h	

We examined a proportional relationship between cups of rice and people served.

- What was the constant of proportionality in this task?
- What did the constant of proportionality represent?
- What equation did we write for this situation?

We examined a proportional relationship where we knew that a plane was flying at a constant speed.

- What was the constant of proportionality for this relationship?
- What did the constant of proportionality represent in this problem?
- What equation did we determine would represent this situation?

Today's Go

- ❑ I can write the constant of proportionality as an entry in a table.
- ❑ I can write an equation of the form $y = kx$ to represent a proportional relationship described by a table or story.

It’s Snowing in Syracuse

Cool Down