Unit 5 Lesson 13: Multi-step Measurement Problems with Fractions

WU True or False: Some Number Times a Fraction (Warm up)

Student Task Statement

Decide whether each statement is true or false. Be prepared to explain your reasoning.

- $16 \times \frac{1}{4} = 4$
- $8 \times \frac{3}{4} = 12$
- $32 \times \frac{2}{8} = 8$
- $60 \times \frac{1}{12} = 10$

1 Info Gap: Noah's School Day (Part 1)

Student Task Statement

Problem Card

On a school day, Noah usually spends 40 minutes on his morning routine and 75 minutes on his sports practice.
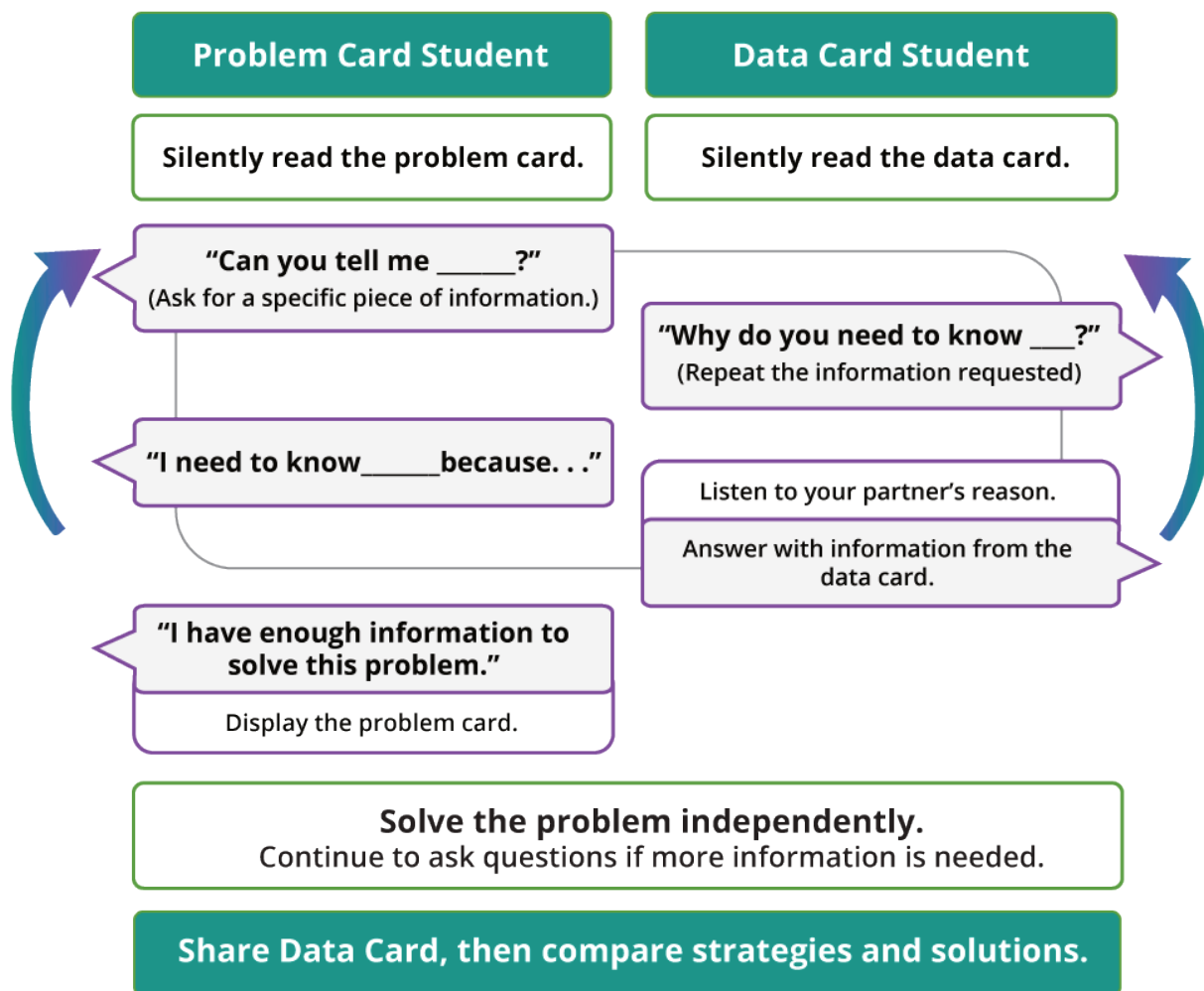
Which one takes more time:

1. Noah's morning routine or his bedtime routine?

2. Noah's sports practice or his homework and reading time?

2 Info Gap: Noah's School Day (Part 2)

Student Task Statement

Your teacher will give you either a problem card or a data card. Do not show or read your card to your partner.

Problem Card Student	Data Card Student
Silently read the problem card.	Silently read the data card.

"Can you tell me _____?"
(Ask for a specific piece of information.)

"Why do you need to know ____?"
(Repeat the information requested)

"I need to know_____because. . ."

Listen to your partner's reason.

Answer with information from the data card.

"I have enough information to solve this problem."

Display the problem card.

Solve the problem independently.
Continue to ask questions if more information is needed.

Share Data Card, then compare strategies and solutions.

Pause here so your teacher can review your work.

Ask your teacher for a new set of cards and repeat the activity, trading roles with your partner.

3 Shopping List (Optional)

Student Task Statement

Here are six ingredients that a shopper bought and some clues about each quantity.

The items are listed in order of weight, from least to greatest.

ingredient	pounds	ounces
rice noodles		
shrimp		

ingredient	pounds	ounces
tapioca flour		
tofu		
carrots		
brown rice		

- The heaviest item weighs 4 times the weight of tofu.
- One ingredient weighs $\frac{1}{2}$ pound.
- The item that weighs 10 pounds is 10 times the weight of shrimp.
- The carrots are 3 times as heavy as the shrimp.
- The carrots are 2 times as heavy as the tapioca flour.
- Brown rice weighs 20 times as much as the weight of noodles.

Use the clues to find out the weight of each ingredient in both pounds and ounces.