Problem Solving with Line Plots

Let's solve problems, using a line plot.

Warm-up

Number Talk: Multiply by 18

Find the value of each expression mentally.

- $\frac{1}{3} \times 18$

- $\frac{2}{3} \times 18$
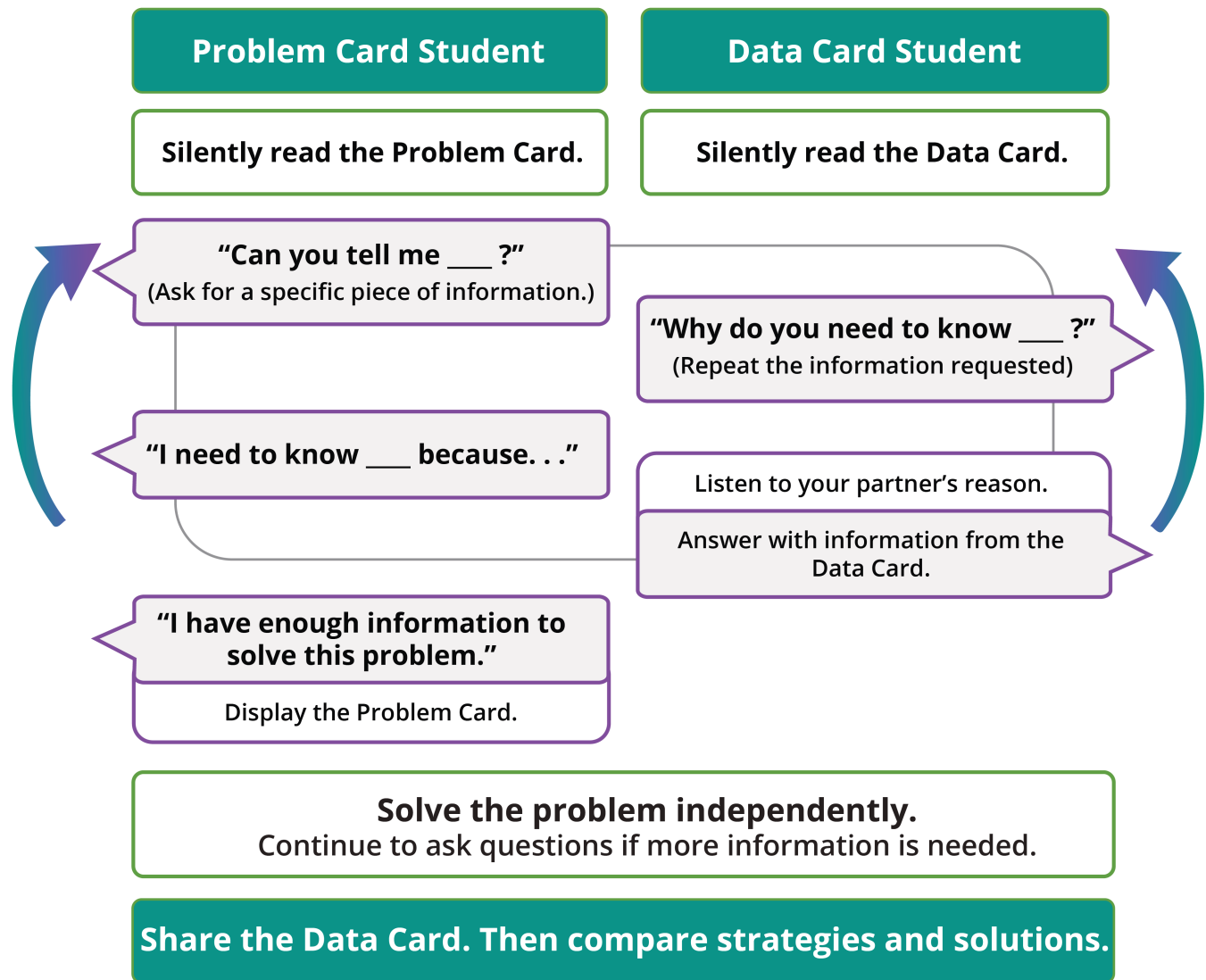
- $\frac{4}{3} \times 18$

- $\frac{5}{3} \times 18$

Info Gap: Picking Fruit

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.

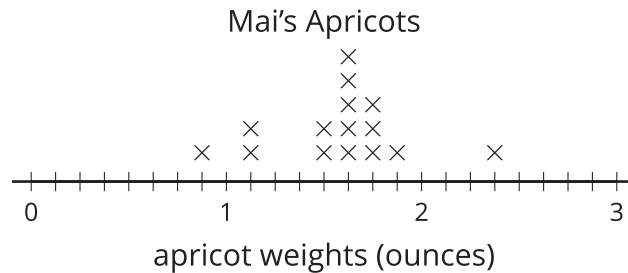**Share the Data Card. Then compare strategies and solutions.**

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.

Mathematical Questions

This line plot shows the weights of the apricots that Mai picked.

Mai's Apricots

apricot weights (ounces)

1. What fraction of the apricots weigh less than $1\frac{1}{2}$ ounces each? Explain or show your reasoning.

2. Write a multiplication equation that represents the total weight of the apricots that each weigh $1\frac{5}{8}$ ounces.

3. Do all of Mai's apricots together weigh more than or less than 1 pound? Explain or show your reasoning.

👥 Section B Summary

We learned to add and subtract fractions.

We learned how to add and subtract fractions with denominators that are the same.

Example: $\frac{7}{10} + \frac{4}{10}$

We add the tenths. There are 11 tenths, so $\frac{7}{10} + \frac{4}{10} = \frac{11}{10}$.

We also learned how to add and subtract fractions with denominators that are not the same.

Example: $\frac{1}{6} + \frac{3}{8}$

We look for a common denominator, so we can add parts of the same size.

One way to find a common denominator is to use the product of the two denominators. This is always a common multiple.

Using 48 as a denominator, we find $\frac{1}{6} + \frac{3}{8} = (\frac{1}{6} \times \frac{8}{8}) + (\frac{3}{8} \times \frac{6}{6})$. This means $\frac{1}{6} + \frac{3}{8} = \frac{26}{48}$.

We also can use a smaller common denominator.

Since 24 is a multiple of 6 and 8, we can rewrite $\frac{1}{6} + \frac{3}{8}$ as $\frac{4}{24} + \frac{9}{24}$, which is $\frac{13}{24}$.