



# 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.

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

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

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

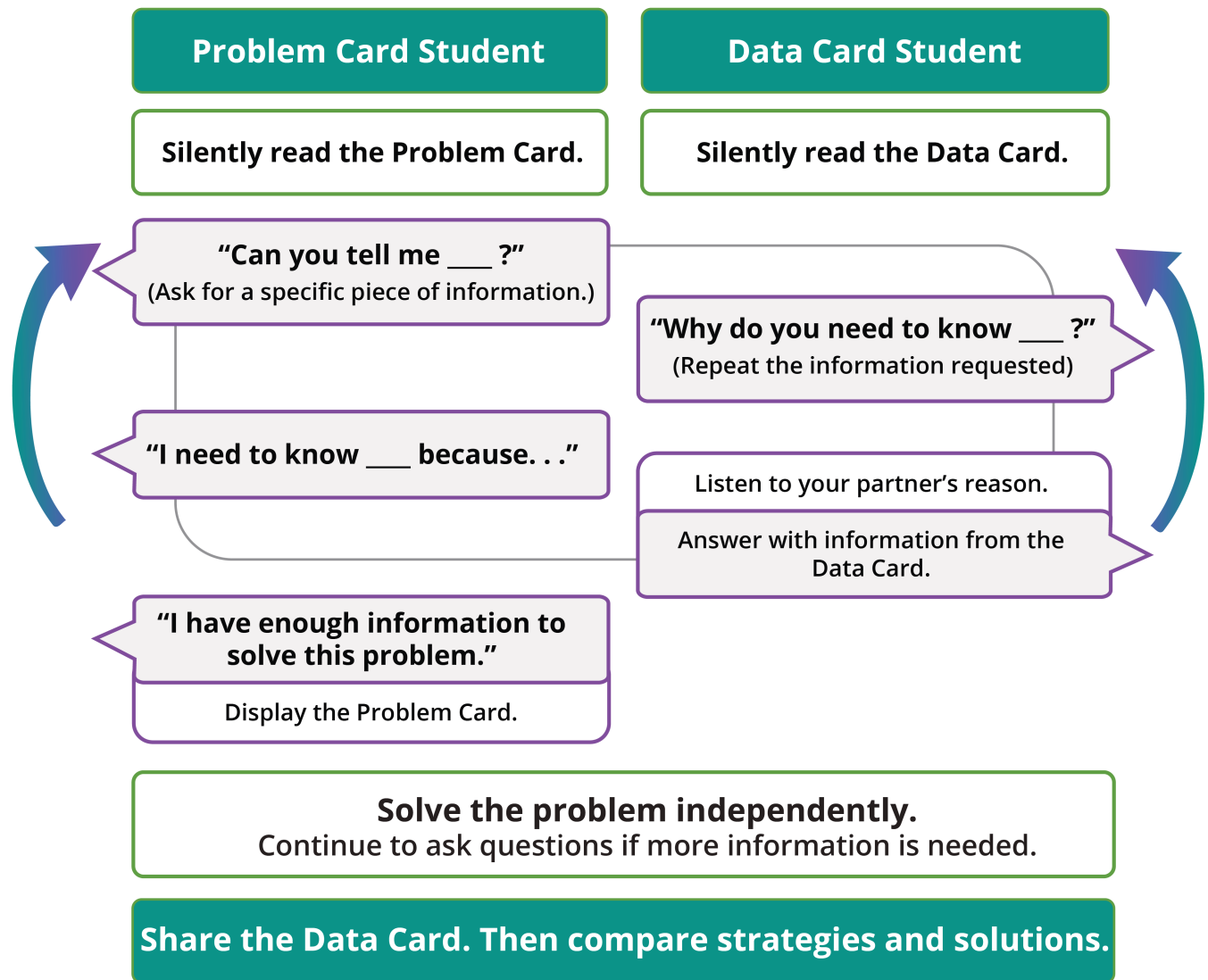
- $\frac{5}{3} \times 18$



## Activity 1

### 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.

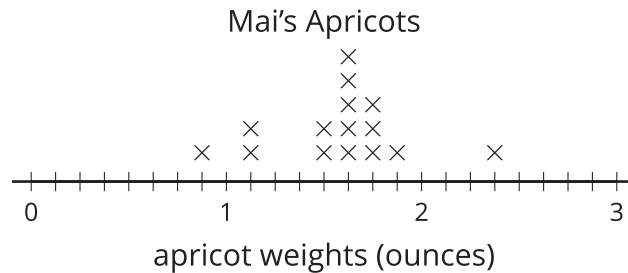


Pause here so your teacher can review your work. Ask your teacher for a new set of cards and repeat the activity, trading roles with your partner.

## Activity 2

### Mathematical Questions

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



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  $\frac{13}{24}$ .