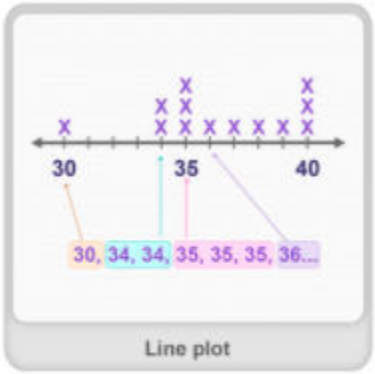
Objective: Solve one and two step problems involving graphs

What is a line plot?

Line plot

A graph that displays data as points above a number line or some other line of characteristics or attributes.



Line plot

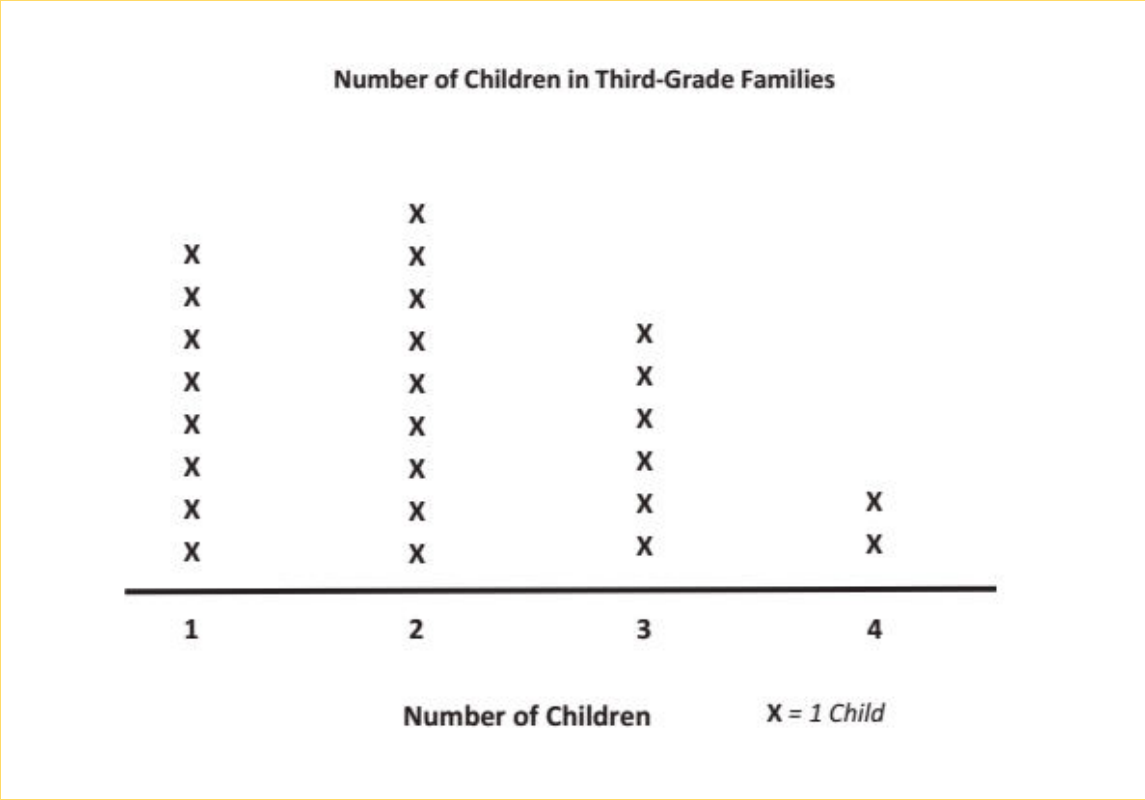
Get out your white board and your white board marker! Looking for the quietest table - extra red cubes!

Read Line Plots

How many students only have one child in their family? Let's count!

On your white board write a number sentence to show how many more third graders have 2 children than 3 children.

9 - 6 = 3



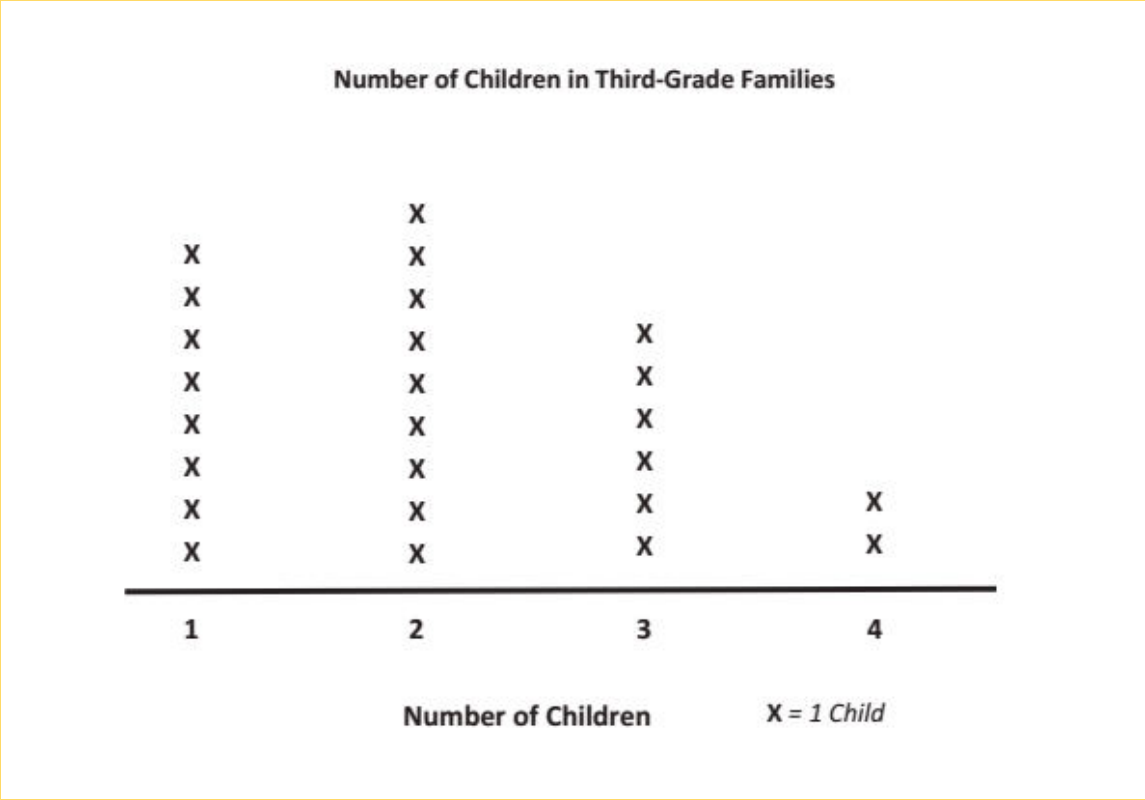
Read Line Plots

How many fewer third graders have 4 children in their family than 2 children?

9 - 2 = 7

How many more third graders have one child in their family than 3 children?

8 - 6 = 2



Read bar graphs

Raise your hand - Did Ryan practice more or less than 30 minutes?

Raise your hand - did he practice for more or less than 40 minutes?

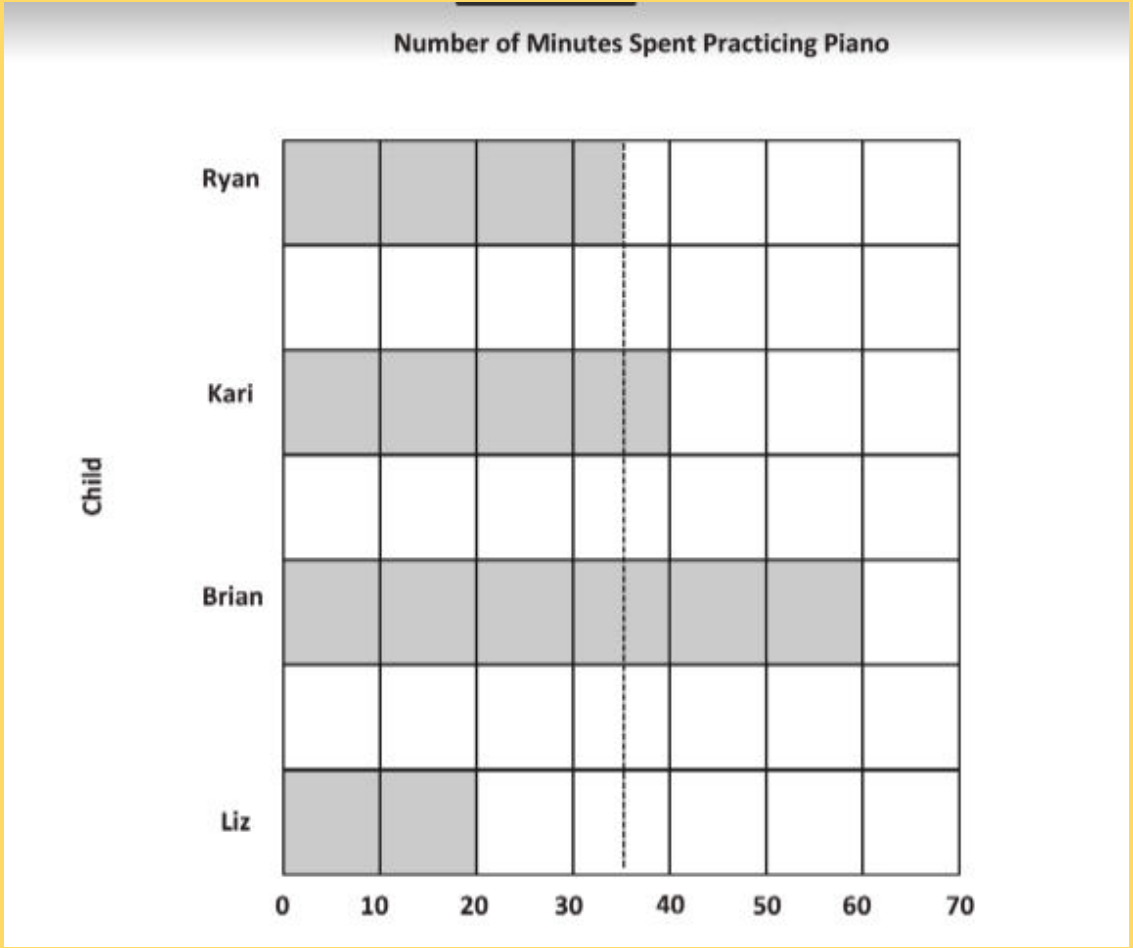
What is half way between 30 and 40 minutes?

Who practiced the longest?

Who practiced the least amount of time?

On your white board write a number sentence to show how much longer Brian practiced than Kari.

60 - 40 = 20



Application Problem - 5 minutes

The following chart shows the number of times an insect"s wings vibrate each second. Use the following clues to complete the unknowns in the chart.

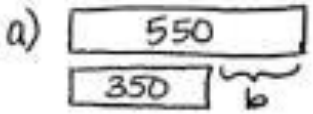
a. The beetle's number of wing vibrations is the same as the difference between the fly's and honeybee's.

b. The mosquito's number of wing vibrations is the same as 50 less than the beetle's and fly's combined.

Wing Vibrations of Insects	
Insect	**Number of Wing Vibrations Each Second**
Honeybee	350
Beetle	b
Fly	550
Mosquito	m

Solution

a)



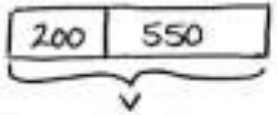
$550 - 350 = b$

$b = 200$

b represents the number of beetle's wing vibrations

A beetle's wings vibrate 200 times each second.

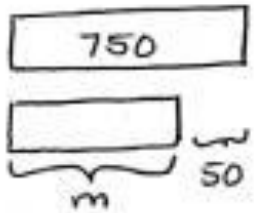
b)



$v = 200 + 550$

$v = 750$

v represents the total vibrations of beetle and fly.



$750 - 50 = m$

$m = 700$

m represents the number of mosquito's wing vibrations.

A mosquito's wings vibrate 700 times each second.

Graph template

We need to choose a scale that works for the data the graph represents.

Talk to a partner - What scale would be best for this data? Why?

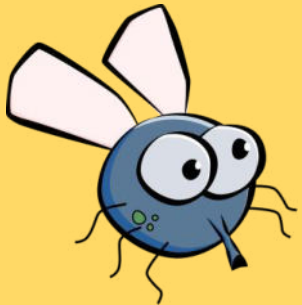
There are lots of wing vibrations , so we need to pick a number that makes senses. In this case using hundred is a strong choice since the numbers we need are between 200 and 700.

Decide if you want a vertical or horizontal scale. Start at 0 and label.

The number of wing vibrations for the honeybee is 350 each second.

Discuss with your partner the bar you will make on your graph. How many units will you shade in?

Many of you noticed that you need to shade a half unit to show the data precisely. Do you need to do the same for other insects?



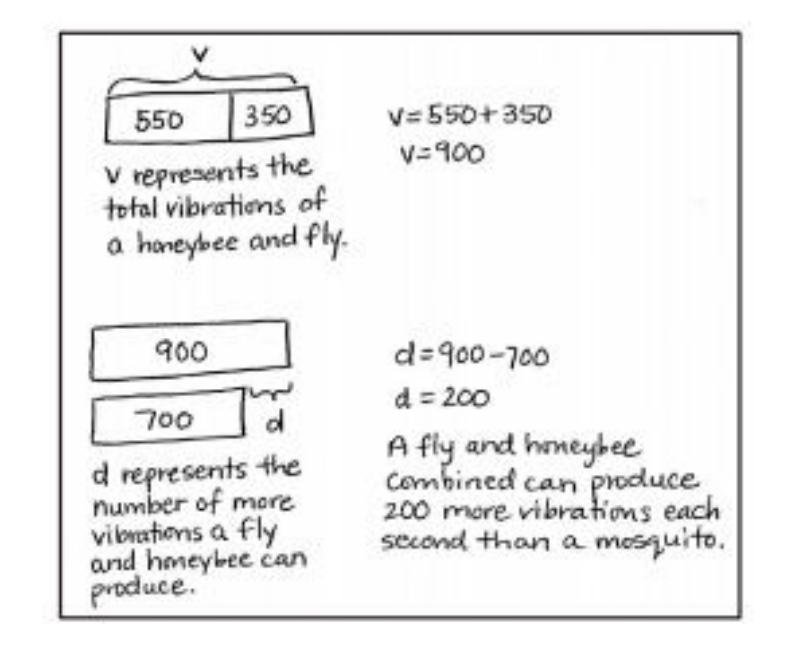
White boards -

On your personal white board, write a number sentence to find the total number of vibrations 2 beetles and 1 honeybee can produce each second,

350 + 200 + 200 = 750

WHITE BOARDS

USE A TAPE DIAGRAM TO COMPARE HOW MANY MORE VIBRATIONS A FLY AND HONEYBEE COMBINED PRODUCE THAN A MOSQUITO.



Problem set - 12 minute timer

Debrief

How did you solve Problem 1(c)? What did you do first?

Explain to your partner what you needed to do before answering Problem 2 (b)

Fluency Sprint - 2 minute timer