## Fractions on line plots

On the line plot below, graph the following information

1. Isabella was measuring her pet snakes, and recording their lengths. Below are the measurements for her snakes in inches: $7 \frac{1}{4}, 6 \frac{1}{4}, 8 \frac{1}{2}, 7 \frac{1}{4}$, $8,6 \frac{1}{4}, 8 \frac{3}{4}, ~ 71 / 2, ~ 71 / 4, ~ 81 / 2, ~ 81 / 4, ~ 71 / 4, ~ 81 / 4, ~ 8$. Arrange this data on the line plot below:


Lenghts of Snakes in inches
1.1. What is the difference in length between the longest and the shortest snake?
1.2. How many more snakes were $81 / 2$ inches and $71 / 4$ inches than $73 / 4$ inches?

## Fractions on line plots

2. Will collected data from his classmates, about how many teaspoons of sugar they used to make a single glass of lemonade. Below are his results.


Teaspoons of sugar
2.1. How many classmates did Will interview?
2.2. How many classmates used more than 4 teaspoons of sugar in their lemonade?
$\qquad$
$\qquad$
$\qquad$
2.3. How many more classmates used $31 / 2$ or less teaspoons of sugar than those who used $41 / 2$ or more teaspoons of sugar?

## Fractions on line plots

3. Scientists have discovered a new compound in berries that helps fight cancer. After taking samplings of different types of berries, the scientists recorded how many ounces of berries were needed to produce 1 gram of this compound. Below are the ounces of berries: $51 / 8,4 \frac{1}{2}, 45 / 8,5,43 / 4,51 / 8,41 / 2,5$ $3 / 8,55 / 8,47 / 8,53 / 8,45 / 8,51 / 2,57 / 8,53 / 8,53 / 4,47 / 8$

Plot them on a line plot, label the units and title the line plot


Ounces of berries
3.1. How many berries did the scientists sample?
3.2. How many samples required either $45 / 8,53 / 8$, or $47 / 8$ ounces of berries to contain 1 gram of the new compound?

## Fractions on line plots


1.


Lenghts of Snakes in inches
1.1. Longest $\rightarrow 83 / 4$ inches

Shortest $\rightarrow 63 / 4$ inches
$83 / 4-63 / 4=2$
There is a 2 inch difference
1.2. $8 \frac{1}{2}$ and $71 / 4$ inches $\rightarrow 2+3=5$ snakes

3.1. 17
3.2. $45 / 8$ ounces $\rightarrow 2$ samples $53 / 8$ ounces $\rightarrow 3$ samples $47 / 8$ ounces $\rightarrow 2$ samples $2+3+2=7$
7 Samples
$73 / 4$ inches $\rightarrow 1$ snake
5-1 = 4
There are 4 more snakes.
2.


Teaspoons of sugar
2.1. 18 classmates
2.2. 8 classmates
2.3. $31 / 2$ or less tsp $\rightarrow 2+4+7=7$ classmates
$41 / 2$ or more tsp $\rightarrow 2+1=3$ classmates
$7-3=4$
4 more classmates

