

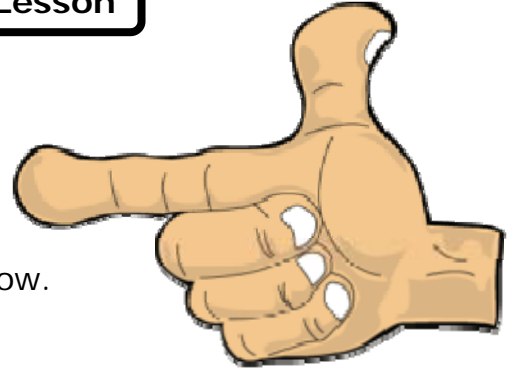
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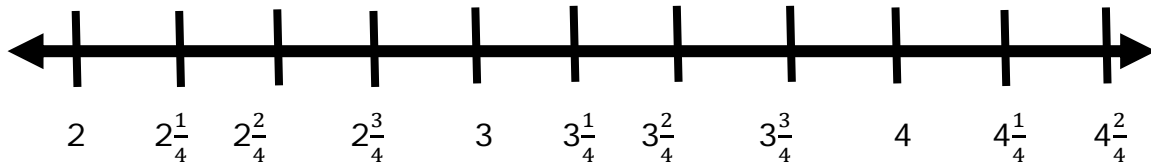
Measurements in Fractions of Unit - Guided Lesson

Complete the following problems:

1) People measured their index finger to the nearest $\frac{1}{4}$ inch. People were given numbers to make the data easier to plot. The data can be found below. Display the data on the line plot below. Then answer the questions below the line plot.



1. Christopher	$3\frac{3}{4}$	4. Daniel	4	7. Hannah	$2\frac{2}{4}$
2. Brandon	$2\frac{3}{4}$	5. Daniel	$2\frac{1}{4}$	8. Ashley	$2\frac{1}{4}$
3. Andrew	$2\frac{1}{4}$	6. Tyler	$3\frac{3}{4}$	9. Alexis	$4\frac{2}{4}$



Questions:

a. What is the size difference between the longest and shortest finger?

b. What is the most common finger size?

c. How many measurements are less than $2\frac{2}{4}$ inches?

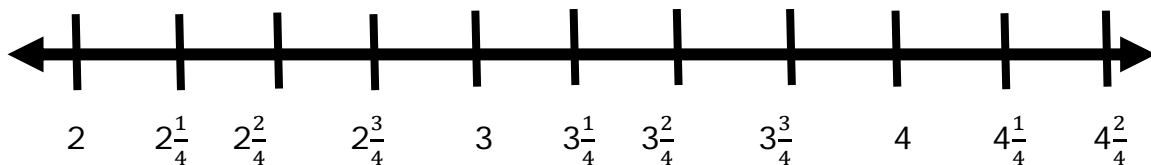


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2) Teachers measured the height of their students in morning daycare. Each child was measured to the nearest $\frac{1}{4}$ foot. Children were given numbers to make the data easier to plot. The data can be found below. Display the data on the line plot below. Then answer the questions below the line plot.

1. Jennifer	$3\frac{1}{4}$	4. Victoria	$2\frac{3}{4}$	7. Anthony	$4\frac{1}{4}$
2. Amanda	4	5. Abigail	$3\frac{1}{4}$	8. Brandon	$3\frac{2}{4}$
3. Alyssa	$2\frac{3}{4}$	6. William	$4\frac{1}{4}$	9. Alexis	$4\frac{1}{4}$



Questions:

- What is the size difference between the tallest and shortest person?
- What is the most common height?
- How many measurements are less than $3\frac{2}{4}$ feet?

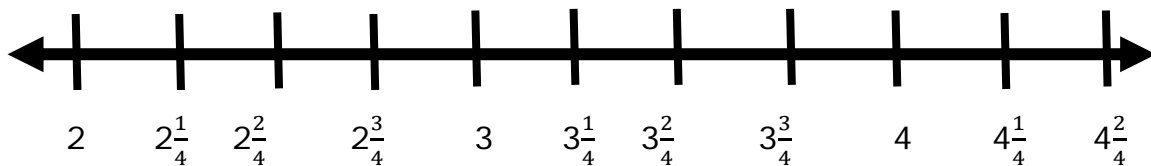


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3) Mrs. Jones's class was having a contest to see who could run the furthest distance. 9 students ran as many times as they could around a $\frac{1}{4}$ mile track. The data from their run can be found below. Display the data on the line plot below. Then answer the questions below the line plot.

1. Abigail	$2\frac{1}{4}$	4. Lauren	$4\frac{1}{4}$	7. Nathan	$3\frac{2}{4}$
2. Elizabeth	$3\frac{2}{4}$	5. Grace	$2\frac{1}{4}$	8. Anna	$4\frac{1}{4}$
3. Sarah	$3\frac{1}{4}$	6. Olivia	$4\frac{1}{4}$	9. Matthew	$3\frac{3}{4}$



Questions:

- What is the difference between the longest and shortest distance?
- What is the most common distance ran?
- How many measurements are less than $4\frac{1}{4}$ miles?



Measurements in Fractions of Unit - Guided Lesson Explanation:

Explanation to #1

a) As we can see on number line the longest finger is 4 and the shortest finger is $2\frac{1}{2}$.

Now to find the difference between the longest and shortest finger.

Subtract the shortest finger i.e. $2\frac{1}{2}$ from the longest finger i.e. 4

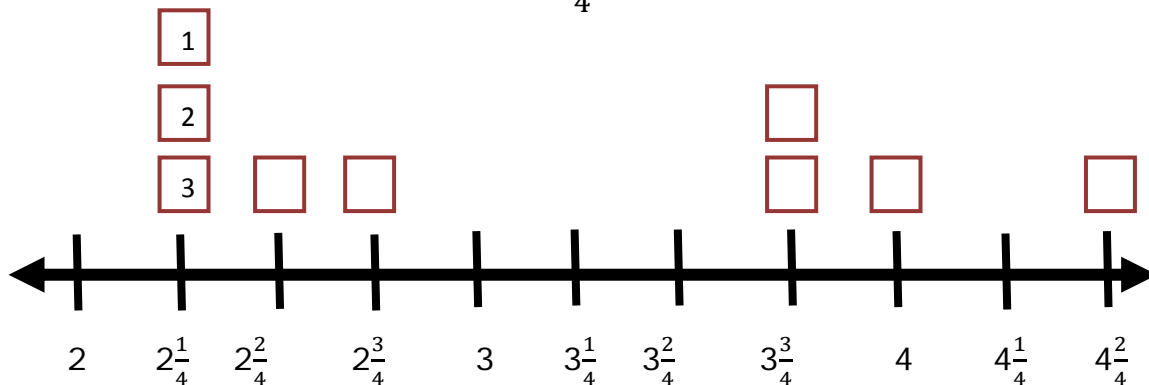
Take L.C.M of
Denominators to subtract fractions

$$4 - 2\frac{1}{2} = \frac{8-5}{2} = \frac{3}{2} \text{ that is } 1\frac{1}{2}$$

So the difference between the longest and shortest finger is $1\frac{1}{2}$

b) Observe the number line. We can clearly see that the most blocks are lying on $2\frac{1}{4}$

So the most common finger size is $2\frac{1}{4}$



c) Look at the number line carefully. $2\frac{2}{4}$

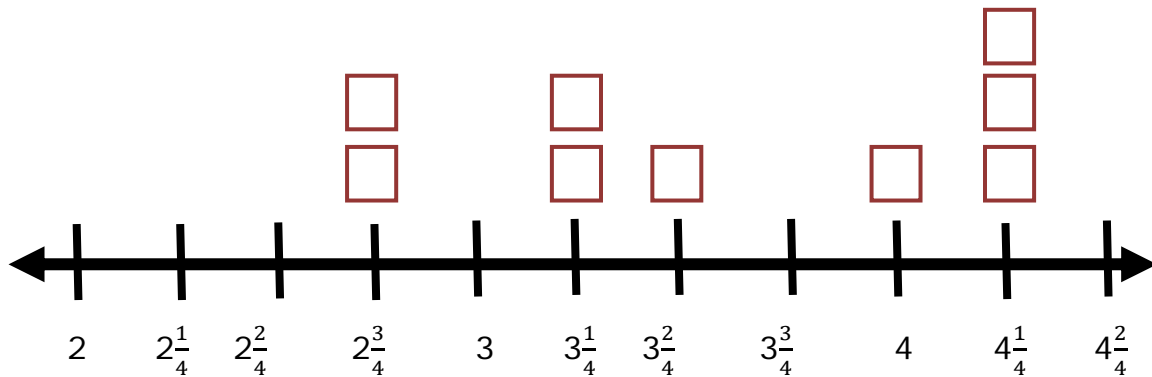
Count all the blocks which are less than $2\frac{2}{4}$

The answer is 3.



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Explanation to #2

a) As we can see on number line the tallest student is $4\frac{1}{4}$ feet and the shortest student is $2\frac{3}{4}$ feet tall.

To find the difference between the longest and shortest student:

Subtract the shortest student i.e. $2\frac{3}{4}$ from the tallest student i.e. $4\frac{1}{4}$

Take L.C.M of

Denominators to subtract fractions

$$4\frac{1}{4} - 2\frac{3}{4} = \frac{17 - 11}{4} = \frac{6}{4} \text{ that is } 1\frac{2}{4}$$

So the difference between the tallest and shortest student is $1\frac{2}{4}$

b) Observe the numbers line. We can clearly see that the most blocks are lying on $4\frac{1}{4}$ feet

So the most common height is $4\frac{1}{4}$ feet.



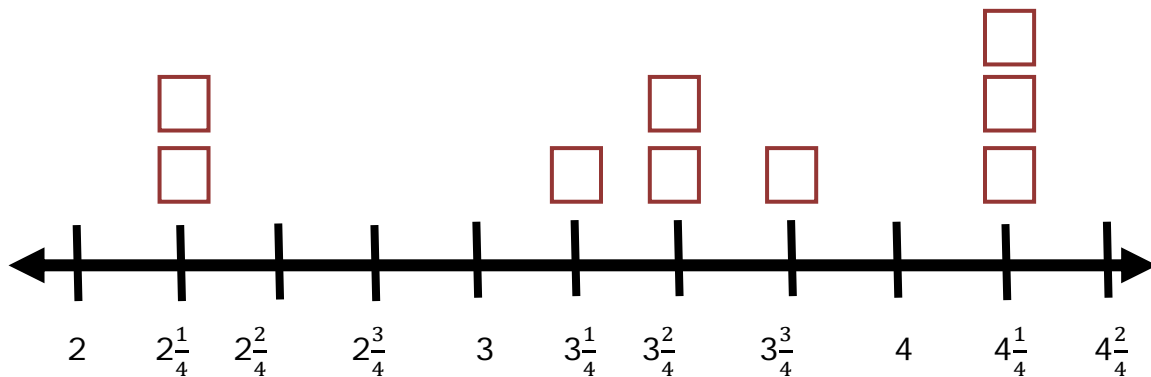
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c) Count all blocks which are less than $3\frac{2}{4}$

The answer is 4.

Explanation to #3



Sa) As we can see on number line the longest distance is $4\frac{1}{4}$ miles and the shortest distance is $2\frac{1}{4}$ miles.

To find the difference between the longest and shortest distance:

Subtract the shortest distance i.e. $2\frac{1}{4}$ from the longest distance i.e. $4\frac{1}{4}$

Take L.C.M of denominators to subtract fractions

$$4\frac{1}{4} - 2\frac{1}{4} = \frac{17 - 9}{4} = \frac{8}{4} \text{ that is } 2$$

So the difference between the longest and shortest distance is 2 miles.

b) Observe the numbers line. We can clearly see that the most blocks are lying on $4\frac{1}{4}$

So the most common distance size is $4\frac{1}{4}$ miles.



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c) See the number line carefully. $4\frac{1}{4}$

Count all the blocks that are less than $4\frac{1}{4}$

The answer is 6.

