CRAVEN
COMMUNITY COLLEGE

TABE Math-E

PAXEN

Unit-5 Measurement and Data
Lesson 36
LINE PLOTS

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Some graphics may not have copied well during the scan process.

Math-E - Lesson 36 – Line Plots

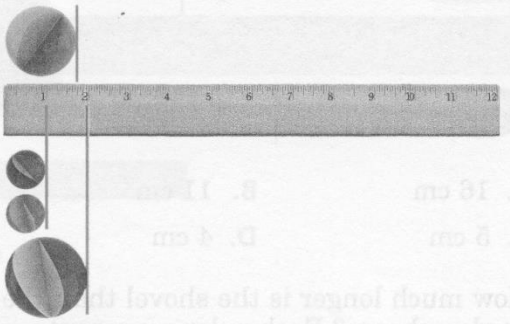
Lesson 36 Line Plots

3.MD.4 – Lov

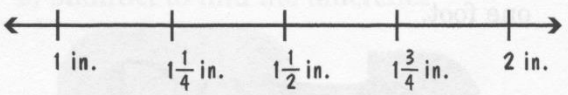
You can represent the measurements of different objects on a line plot.

Example **Create a line plot to represent the measurements of the 4 marbles.**

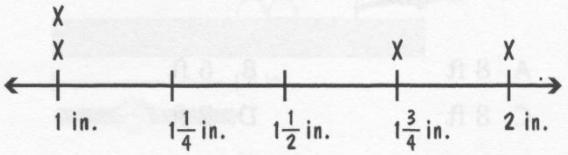
1) Measure the objects. The marbles measure $1\frac{3}{4}$ in., 1 in., 1 in., and 2 in.



2) Create a line plot. Space out the measurements evenly. Since the measurements of the marbles are in quarter inches, the line plot shows quarter-inch intervals.



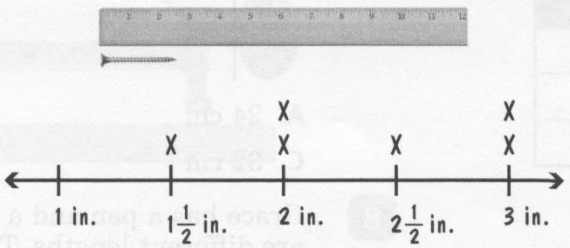
3) Make a mark, such as an *X*, on the line plot for each measurement.



2 marbles measure 1 in., 1 marble measures $1\frac{3}{4}$ in., and 1 marble measures 2 in.

Test Example

1. The line plot shows the lengths of some screws used in a project. Where would this screw be placed on the plot?



A. $3\frac{1}{2}$ in.

B. 3 in.

C. $2\frac{1}{2}$ in.

D. 2 in.

1. **C** The screw measures $2\frac{1}{2}$ inches.

Strategy

Draw a line from the end of the screw over to the edge of the ruler. This will help you see how long the screw is.

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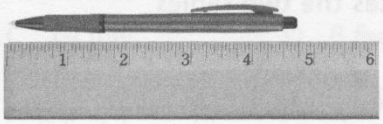
Practice

Read each question. Select the correct answer.

1 Cole makes a line plot to record the measurements of his pens. He measures the last pen. Where should Cole make a mark on the line plot for the pen?



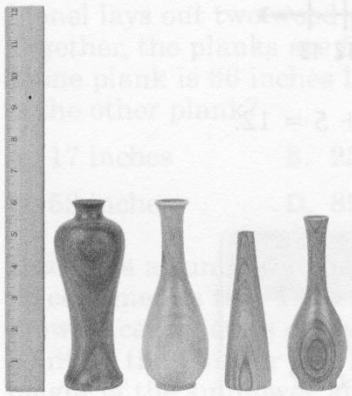
A. $4\frac{1}{2}$ in.

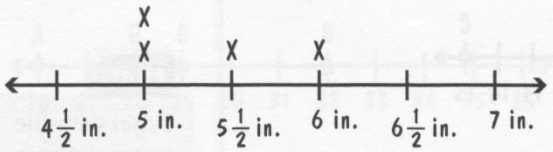
B. $4\frac{3}{4}$ in.

C. 5 in.

D. $5\frac{1}{4}$ in.

2 Emily makes a line plot to record the heights of several bud vases. What change does she need to make to the line plot?





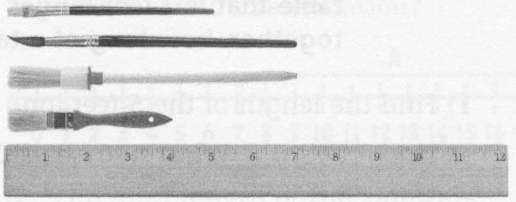
A. Move one X from 5 in. to $5\frac{1}{2}$ in.

B. Move two Xs from 5 in. to 6 in.

C. Move one X from 6 in. to 5 in.

D. Move one X from 5 in. to 6 in.

3 Jacob wants to create a line plot to record the measurements of his paintbrushes. How many Xs will he place above the point on the line plot labeled "5 in."?



A. 0

B. 1

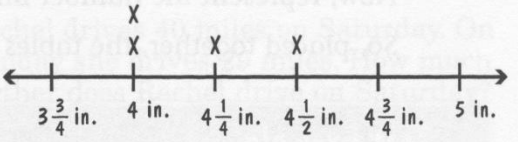
C. 2

D. 4

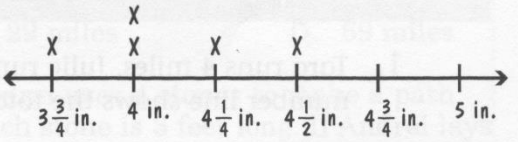
4 Which line plot correctly displays the measurements given in the table?

Object	Measurement
orange	4 inches
apple	$3\frac{3}{4}$ inches
grapefruit	$4\frac{1}{2}$ inches
peach	4 inches

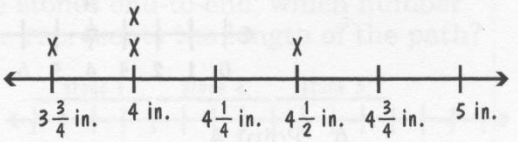
A.



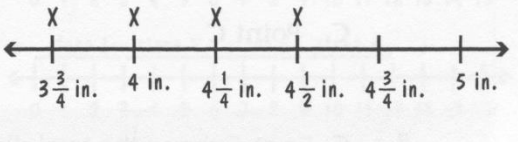
B.



C.



D.



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Lesson 36 Line Plots

(3.MD.4)

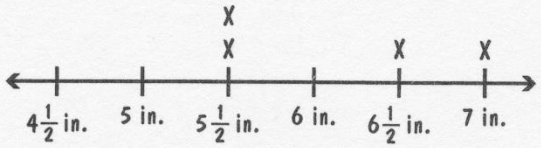
1. B. The pen measures $4\frac{3}{4}$ inches.
2. D. Two vases measure 6 inches, one vase measures $5\frac{1}{2}$ inches, and one vase measures 5 inches.
3. B. There is one paintbrush that measures 5 inches, so Jacob should place one *X* above the point labeled "5 in."
4. C. One piece of fruit measures $3\frac{3}{4}$ inches, two measure 4 inches, and one measures $4\frac{1}{2}$ inches.

Math-E - Practice 36 – Line Plots

Practice 36 Line Plots

3.MD.4 – Low

1 Wayne has four darts. The darts measure $6\frac{1}{2}$ inches, $5\frac{1}{2}$ inches, $6\frac{1}{2}$ inches, and 7 inches. Wayne makes a line plot to record the lengths of his darts. What change does he need to make to the line plot?



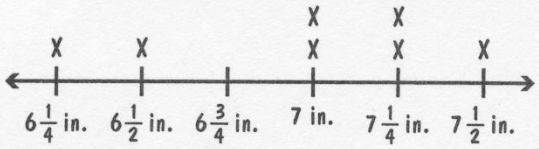
A. Move one *X* from 7 in. to 6 in.

B. Move one *X* from $6\frac{1}{2}$ in. to $5\frac{1}{2}$ in.

C. Move one *X* from $6\frac{1}{2}$ in. to 6 in.

D. Move one *X* from $5\frac{1}{2}$ in. to $6\frac{1}{2}$ in.

2 The line plot shows the lengths of some dinosaur teeth collected during a dig. How many teeth are more than 7 inches?



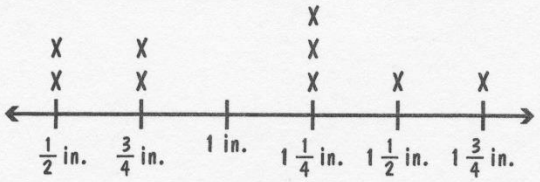
A. 4 teeth

B. 3 teeth

C. 1 tooth

D. 0 teeth

3 The line plot shows the lengths of some drill bits. How many drill bits are less than 1 inch?



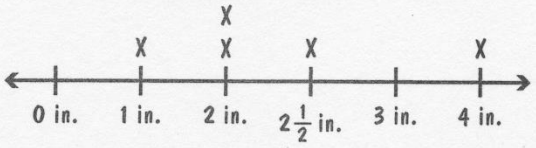
A. 2 drill bits

B. 4 drill bits

C. 5 drill bits

D. 7 drill bits

4 The line plot shows amounts of rainfall in various cities during the month of March. Rainfall is measured in half inches. Which statement describes the mistake in the line plot?



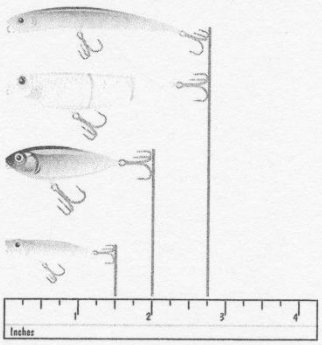
A. The intervals are not evenly spaced.

B. The line plot has whole numbers and mixed numbers.

C. The measurements are not in $\frac{1}{2}$-inch intervals.

D. The line plot does not include $\frac{1}{4}$-inch measurements.

5 Ximena records the measurements of her fishing lures on a line plot. How many *X*s will Ximena record above the point on the line plot labeled $1\frac{1}{2}$ in.?



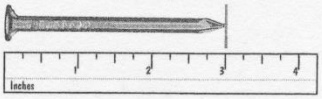
A. 1

B. 2

C. 3

D. 4

6 Felipe records the lengths of some nails he finds in his toolbox. Where would Felipe place this nail on a line plot?



A. 3 in.

B. $2\frac{3}{4}$ in.

C. $2\frac{1}{2}$ in.

D. $2\frac{1}{4}$ in.

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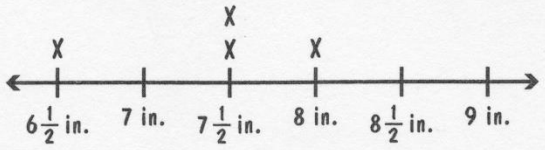
7 The line plot shows the lengths of some beetles. How many beetles are exactly 8 inches long?



A. 0 beetles
B. 1 beetle
C. 2 beetles
D. 4 beetles

Use the information to answer question 8.

Manolo collects seashells. During a trip to the beach, he buys four new seashells for his collection. The seashells measure $3\frac{1}{2}$ inches, 5 inches, $3\frac{1}{2}$ inches, and 3 inches.

8 **Part A**

Manolo records the measurements of his new seashells on a line plot. How many *X*s will he place above the point on the line plot labeled $3\frac{1}{2}$ in.?

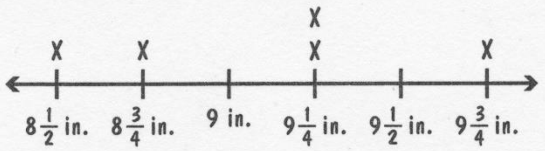
A. 0
B. 1
C. 2
D. 3

Part B

How many *X*s will Manolo place above the point on the line plot labeled 4 in.?

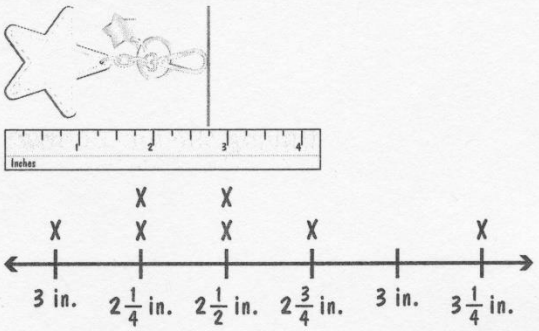
A. 0
B. 1
C. 2
D. 3

9 What are the heights of the flowers shown on the line plot?



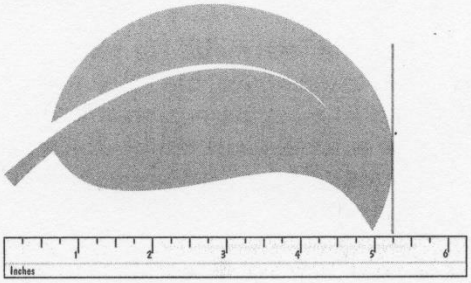
A. 8 in., $8\frac{1}{2}$ in., $8\frac{3}{4}$ in., $9\frac{1}{4}$ in., $9\frac{3}{4}$ in.
B. $8\frac{1}{2}$ in., $8\frac{3}{4}$ in., 9 in., $9\frac{1}{2}$ in., $9\frac{1}{4}$ in.
C. $8\frac{1}{2}$ in., $8\frac{3}{4}$ in., $9\frac{1}{4}$ in., $9\frac{1}{4}$ in., $9\frac{3}{4}$ in.
D. $8\frac{3}{4}$ in., $9\frac{1}{4}$ in., $9\frac{1}{2}$ in., $9\frac{1}{2}$ in., $9\frac{3}{4}$ in.

10 The line plot shows the lengths of some trinkets. Where would this trinket be placed on the line plot?



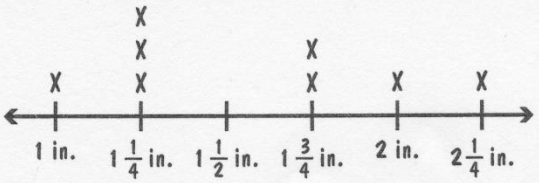
A. 1 in.
B. $1\frac{3}{4}$ in.
C. $2\frac{3}{4}$ in.
D. $3\frac{1}{2}$ in.

11 Akasuki records lengths of leaves in a line plot. Where would Akasuki place this leaf on the line plot?



A. 6 in.
B. $5\frac{3}{4}$ in.
C. $5\frac{1}{2}$ in.
D. $5\frac{1}{4}$ in.

12 Ephraim uses a line plot to record the widths of tiles leftover from a home improvement project. Which statement is true?



A. No tiles are 1 inch long.
B. Ephraim has seven leftover tiles.
C. $\frac{3}{8}$ of the tiles are $1\frac{1}{4}$ inches long.
D. Ephraim has one tile that is $1\frac{1}{2}$ inches long.

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Practice 36 Line Plots

pp. 12–13 (3.MD.4)

1. D. One dart measures $5\frac{1}{2}$ inches, two darts measure $6\frac{1}{2}$ inches, and one dart measures 7 inches. Wayne should move one *X* from $5\frac{1}{2}$ in. to $6\frac{1}{2}$ in.
2. B. There are two *X*s above $7\frac{1}{4}$ in. and one *X* above $7\frac{1}{2}$ in., so there are 3 teeth more than 7 inches.
3. B. There are two *X*s above $\frac{1}{2}$ in. and two *X*s above $\frac{3}{4}$ in., so there are 4 drill bits that are less than 1 inch long.
4. C. The measurements are in half inches, so the intervals should be in half inches.
5. A. There is one lure that measures $1\frac{1}{2}$ inches, so Ximena should place one *X* above the mark labeled $1\frac{1}{2}$ in.
6. A. The nail measures 3 inches.
7. B. There is one *X* above the mark labeled 8 in. so there is one beetle that is 8 inches long.
8. **Part A:** C. There are two shells that measure $3\frac{1}{2}$ inches, so Manolo should place two *X*s above the mark labeled $3\frac{1}{2}$ in.

   Part B: A. There are no shells that measure 4 inches, so Manolo should not place any *X*s above the mark labeled 4 in.
9. C. There is one *X* above $8\frac{1}{2}$ in., one *X* above $8\frac{3}{4}$ in., two *X*s above $9\frac{1}{4}$ in., and one *X* above $9\frac{3}{4}$ in., so the heights are $8\frac{1}{2}$ in., $8\frac{3}{4}$ in., $9\frac{1}{4}$ in., $9\frac{1}{4}$ in., and $9\frac{3}{4}$ in.
10. C. The trinket measures $2\frac{3}{4}$ inches.
11. D. The leaf measures $5\frac{1}{4}$ inches.
12. C. There are 8 *X*s on the line plot, so Ephraim has 8 tiles. There are three *X*s above $1\frac{1}{4}$ in., so $\frac{3}{8}$ of the tiles are $1\frac{1}{4}$ inches long.