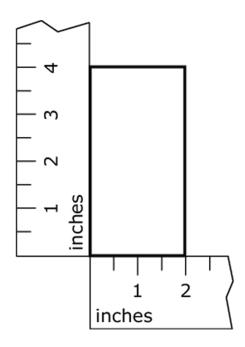
Models

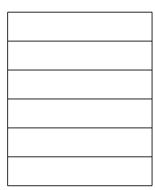
1. This rectangle can be divided into equal parts.

Click to show  $\frac{1}{4}$  of the rectangle.



2. The rectangle shown is divided into equal parts. Shade  $\frac{4}{6}$  of the rectangle.

Select the parts you want to shade.



3.	In a bag of balloons, $\frac{2}{8}$ of the balloons are red and $\frac{5}{8}$ of the balloons are blue.		
	What fraction of the balloons in the bag are either red or blue?		
	Complete the model so that it is shaded to represent the fraction of the balloons that are either red or blue		
	Select the parts you want to shade.		
	Red and Blue Balloons		
4.	The rectangle shown represents 1 whole.		
	In the model below, select the number of rectangles that represents the product of $\frac{3}{4}$ and 8.		
	Select the rectangles you want to shade.		

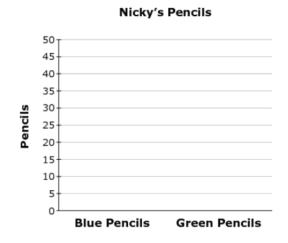
page 2 Clickable arrays

#### Bar charts

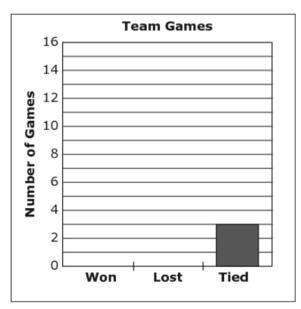
5. Nicky has 4 packs of pencils. Each pack contains 15 pencils. In each pack, 5 pencils are blue and the rest are green.

Create a bar graph to show how many of each color pencil Nicky has.

Click the graph to show where the top of the bars should go.



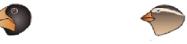
6. Kelly's soccer team played 24 games. The team won exactly twice as many games as it lost. The team tied in 3 games.



Click above each label to create a bar graph showing how many games Kelly's team won and lost.

page 3 Clickable arrays

7. A population of finches shows two beak types and three genotypes for the beak types. The finches' seed diet is also shown.



BB and Bb - Dominant

Eats large seeds & nuts

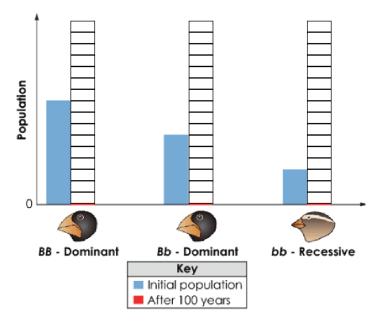
**bb - Recessive**Eats small soft seeds

The environment in which the finches live changes to be very rainy and wet. In this environment the large nuts

Fill in the missing red bars of the graph to predict the change in the population's beak genotypes if this environment change continues for 100 years. Red bars will appear next to the blue bars when you click on the red lines.

• There may be more than one correct answer.

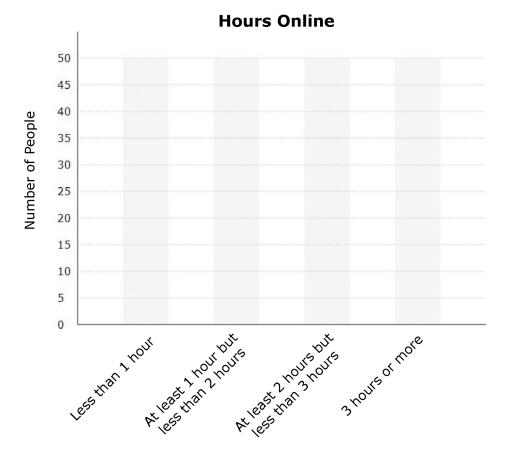
and seeds are very scarce, but the small, soft seeds are plentiful.



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- 8. A group of 100 people were asked how many hours they are online each day. The results are listed:
  - 25 people online for less than 1 hour
  - 10 people online for at least 1 hour but less than 2 hours
  - 20 people online for at least 2 hours but less than 3 hours
  - 45 people online for 3 hours or more

Complete the bar graph so that it correctly represents the data.



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9. Twelve friends went bowling. Their scores are listed in the table.

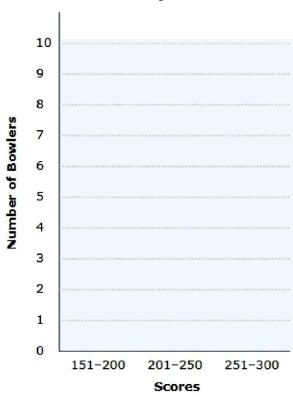
**Bowling Scores** 

202	196	280	176
255	190	200	300
207	230	240	247

Complete the histogram to represent the bowling scores.

Select the correct height for each bar in the graph.

## **Bowling Scores**

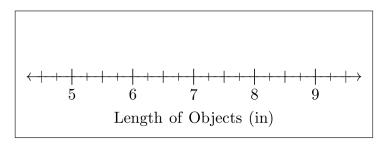


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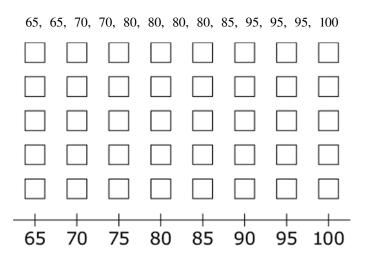
10. Students pulled classroom objects from a bag and measured them in inches. They used this data to make a line plot.

Objects	Length (in)
Pen	$5\frac{1}{2}$
Scissors	$7\frac{3}{4}$
Stapler	$7\frac{1}{4}$
Calculator	$6\frac{1}{2}$
Notepad	$8\frac{1}{4}$

Click above the tick marks to complete the line plot that displays the data.



11. Click above the numbers to create a line plot for the given percent chances of rain in different cities.

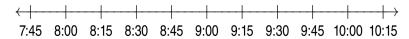


**Percent Chance of Rain** 

- 12. Miguel decided to watch a show on television:
  - It took him 15 minutes to choose a show to watch.
  - After choosing a show, he watched the show for 1 hour.

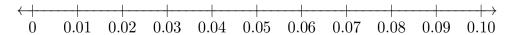
If Miguel started choosing a show at 7:45, at what time did he stop watching the show?

Select one location on the number line to plot the point.



13. Which point on the number line represents the fraction  $\frac{6}{100}$ ?

Select the place on the number line to plot the point.

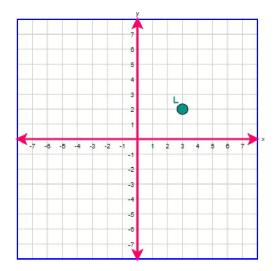


14. The middle school choir has a total of 45 members, and the ratio of boys to girls is 5:4. At the spring concert, 1 boy was absent and 2 girls were absent. Which points on the number lines can be used to represent the ratio of boys to girls at the spring concert?

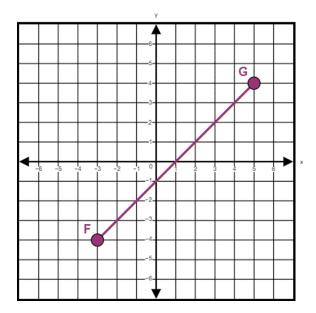
Select one location on each number line to plot the points.



15. The graph shows point *L*. What is the location of a point 5 units down and 2 units to the left of point *L*? Plot the point on the coordinate grid.



16. Line segment  $\overline{FG}$  is graphed on this coordinate plane. Plot point E on  $\overline{FG}$  such that the length of  $\overline{EF}$  is 3 times the length of  $\overline{EG}$ . Select the place on  $\overline{FG}$  to plot the point.



### Other examples

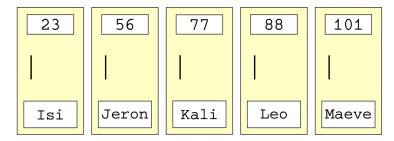
17. The table shows Mr. Archer's net worth statement. Which items are liabilities? Select *three* correct answers.

Net Worth Statement

Item	Value (dollars)
Checking account	590
Auto loan	3,300
Credit card debt	950
Savings account	1,590
Home mortgage	86,500

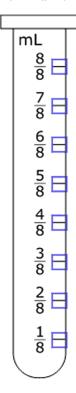
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18. The locker doors for 5 students are shown. Select the students who have lockers that are marked with odd numbers.



19. A chemistry student is using a dropper to place drops of liquid into a glass container. The container has marks every  $\frac{1}{8}$  milliliter (mL), and each drop contains 0.06 mL of liquid. After the student has placed 14 drops into the container, between which two consecutive marks will the level of the liquid in the container be?

Select the two locations on the container to choose the marks.



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20. Handyman Bill created this model of the kitchen floor tiles:

2 = 4	4 + 2 = 6	9 = 8 + 1
4 + 3 = 7	5 + 4 = 10	11 = 3 + 8
5 + 1 = 7	9 + 6 = 13	3 = 7
6 = 3 + 3	4 + 3 = 6	3 + 9 = 12
9 = 2 + 7	9 = 9	16 = 8 + 8

Handyman Bill needs to fix the floor tiles that show a true number sentence.

Select the tiles that show a true number sentence.

21. To reach the dog bed, Rusty must step on each true number sentence.

Mark every true number sentence to help Rusty reach the dog bed.



$$2 + 7 = 9$$

$$4 + 5 = 9$$

$$9 = 4 + 6$$

$$5 = 1 + 3$$

$$15 = 8 + 7$$

$$13 = 6 + 7$$



$$16 = 3 + 9$$

$$6 + 3 = 8$$

$$5 = 5$$

22. This graphic organizer shows physical characteristics that affected the development of the early United States.

Which physical characteristics contributed *most* to the development of the shipbuilding industry in the northeastern states?

Select three correct answers.

# Physical Characteristics of the Early United States

Thick forests

Long growing season

Broad coastal plains

Deep harbors

Abundant sea life

Large desert regions

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## Problem-Attic format version 4.4.683

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Clickable arrays 12/9/2024

1. Answer: Points:	1	14. Answer: Points:	1
2. Answer: Points:	1	15. Answer: Objective: Points:	6.11A 1
3. Answer: Objective: Points:	4.03E 1	16. Answer: Points:	1
4. Answer: Objective: Points:	5.03I 1	17. Answer: Objective: Points:	7.13C 1
5. Answer: Points:	1	18. Answer: Points:	1
6. Answer: Points:	1	19. Answer: Points:	1
7. Answer: Points:	1	20. Answer: Points:	0,1,1,1,0,1,0,0,0,1,0,1,1,1,1
8. Answer: Objective: Points:	5.09A 1	21. Answer: Points: 22.	1
9. Answer: Objective: Points:	6.12A 1	Answer: Objective: Points:	8.08A 1
10. Answer: Points:	1		
11. Answer: Points:	1		
12. Answer: Objective: Points:	3.07C 1		
13. Answer: Points:	1		