



PAWS
Mathematics
Grade 4
Released Items
With Data

2010

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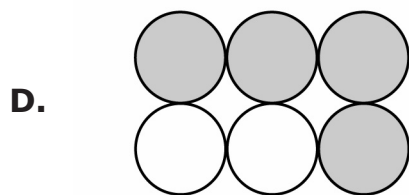
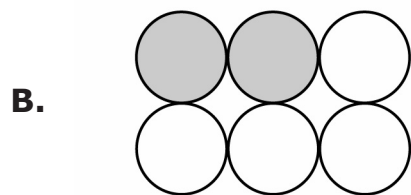
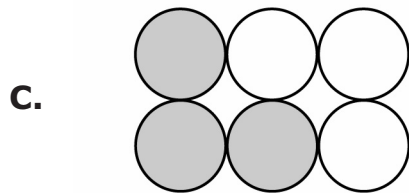
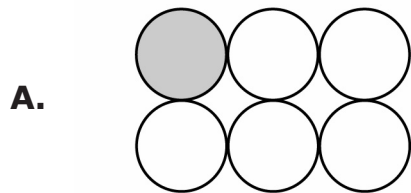
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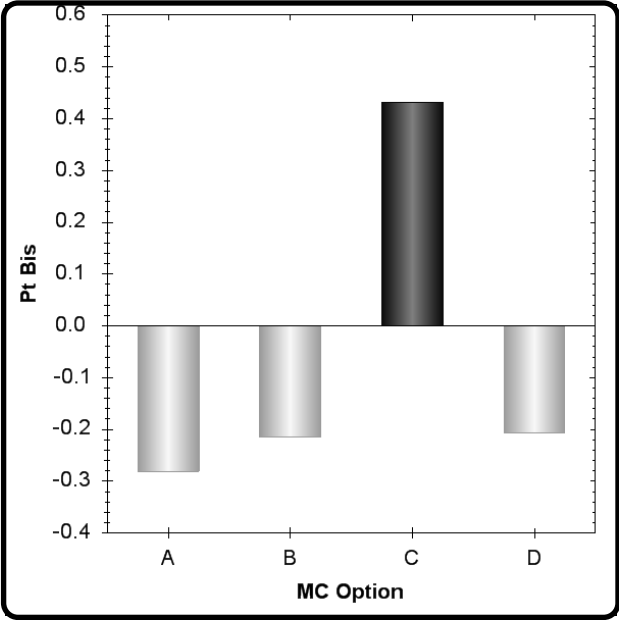
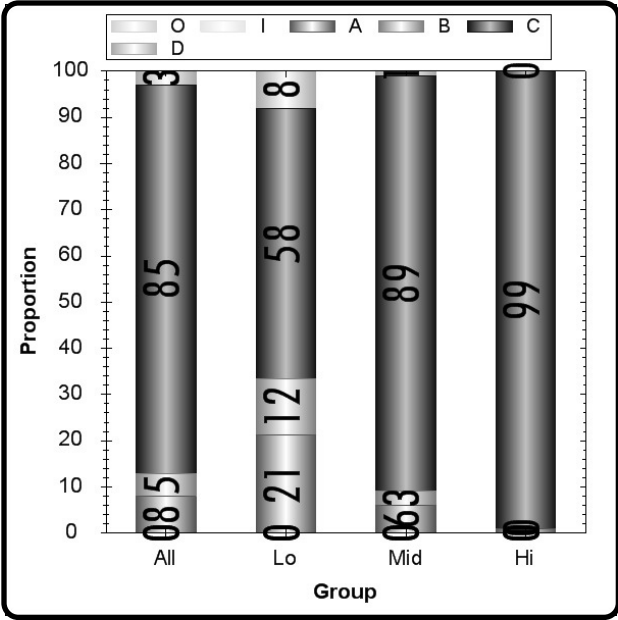
Which of these shows exactly $\frac{1}{2}$ of the group of 6 circles shaded?



Type	Max Points	Correct Answer	N Count	Item Mean	Discrimination
Multiple Choice	1	C	6532	0.850	0.432

	A	B	C	D	Omit	Invalid
All	8	5	85	3	0	0
Low Scorers	21	12	58	8	0	0
Middle Scorers	6	3	89	1	0	0
High Scorers	1	0	99	0	0	0

MC Item Option Discriminations			
A	B	C	D
-0.281	-0.215	0.432	-0.206



Notes:

Male students may perform better on this item as compared to Female students. (B)

White students may perform better on this item as compared to Hispanic students. (B)

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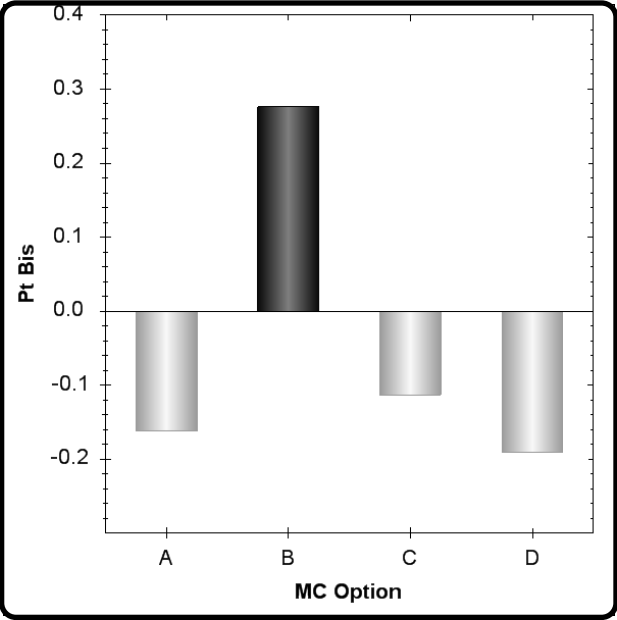
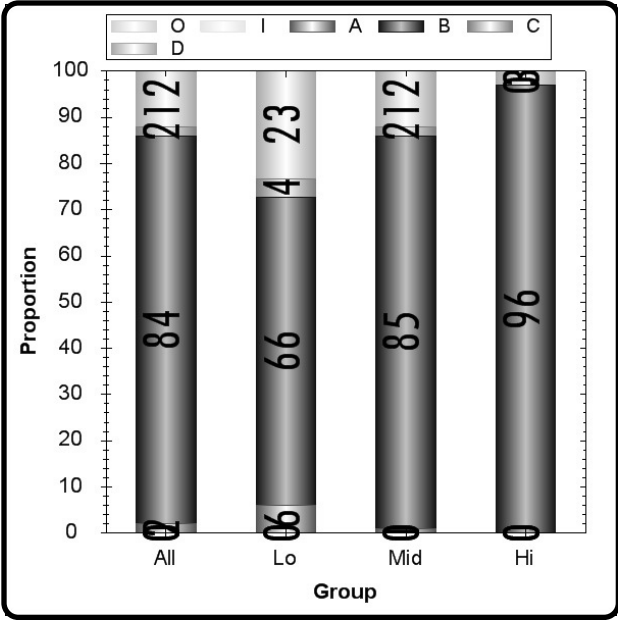
Which of these has 6 faces?

- A.** Cone
- B.** Cube
- C.** Triangle
- D.** Square

Type	Max Points	Correct Answer	N Count	Item Mean	Discrimination
Multiple Choice	1	B	6532	0.840	0.276

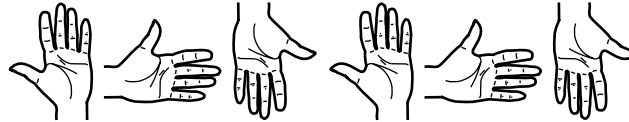
	A	B	C	D	Omit	Invalid
All	2	84	2	12	0	0
Low Scorers	6	66	4	23	0	0
Middle Scorers	1	85	2	12	0	0
High Scorers	0	96	0	3	0	0

MC Item Option Discriminations			
A	B	C	D
-0.162	0.276	-0.113	-0.191






Notes:

The picture shows a pattern Virginia is making using painted handprints.



Which of the following could be the rule Virginia uses to make this pattern?

A. Repeat   in the same order.

B. Repeat    in the same order.

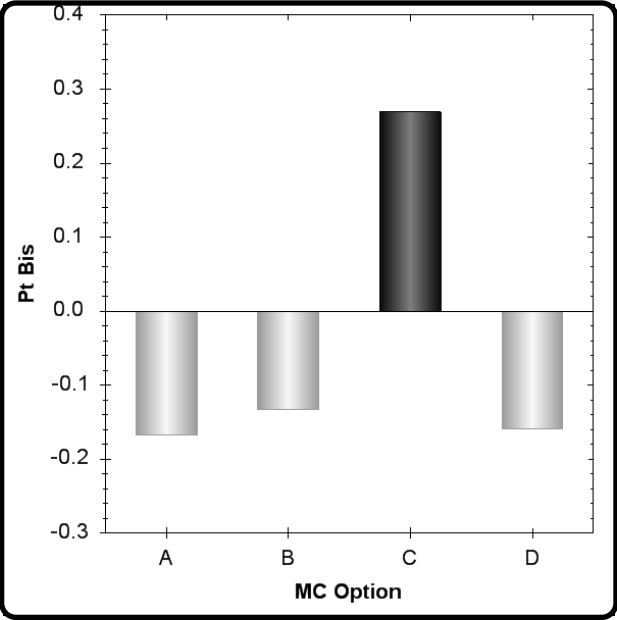
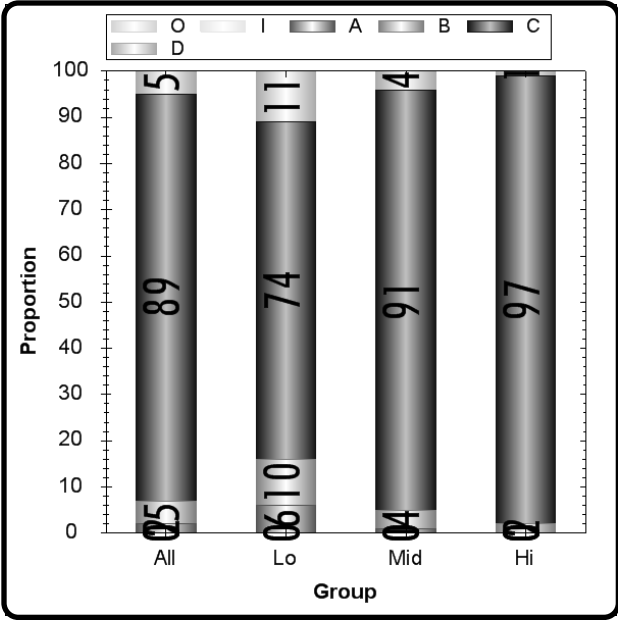
C. Repeat    in the same order.

D. Repeat   in the same order.

Type	Max Points	Correct Answer	N Count	Item Mean	Discrimination
Multiple Choice	1	C	6532	0.890	0.269

	A	B	C	D	Omit	Invalid
All	2	5	89	5	0	0
Low Scorers	6	10	74	11	0	0
Middle Scorers	1	4	91	4	0	0
High Scorers	0	2	97	1	0	0





MC Item Option Discriminations			
A	B	C	D
-0.168	-0.133	0.269	-0.159




Notes:

The pictograph below shows the number of pounds of paper collected for recycling by each of four friends.

PAPER COLLECTED FOR RECYCLING

Name	Number of Pounds Collected
Dora	
Eli	
Hugh	
Lynn	

Key Each  represents 10 pounds.

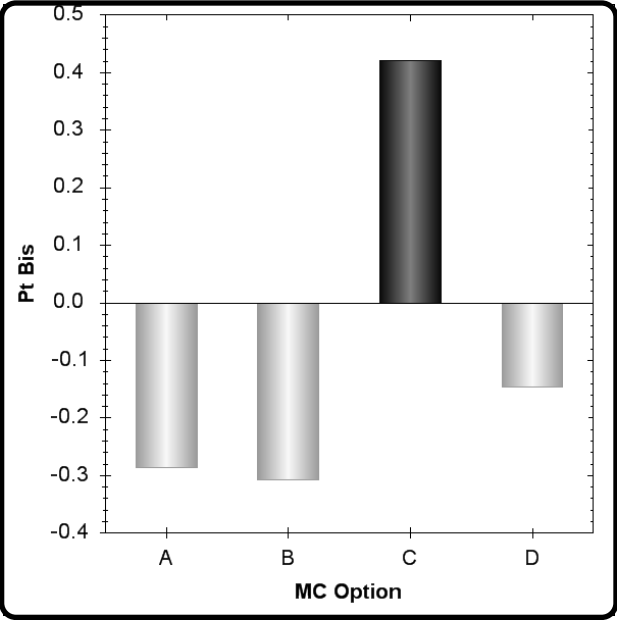
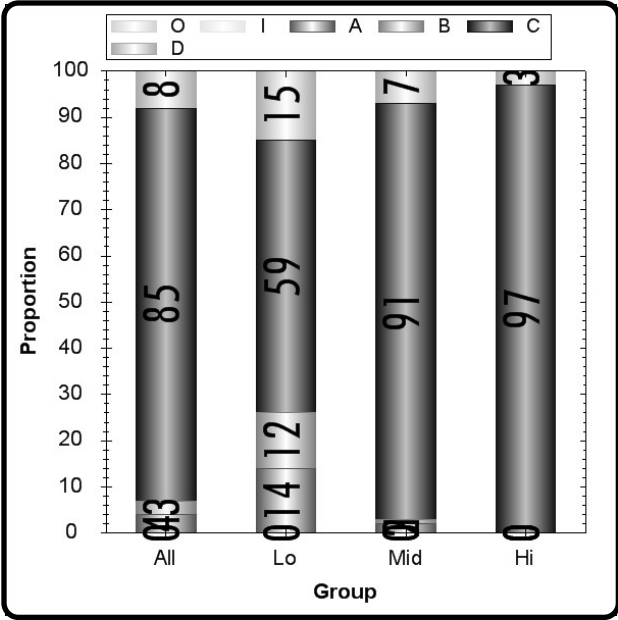
According to the data in the graph, what was the total number of pounds of paper the four friends collected for recycling?

- A. 19
- B. 20
- C. 190
- D. 200

Type	Max Points	Correct Answer	N Count	Item Mean	Discrimination
Multiple Choice	1	C	6532	0.850	0.421

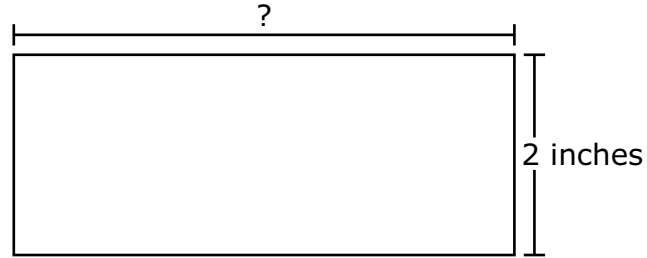
	A	B	C	D	Omit	Invalid
All	4	3	85	8	0	0
Low Scorers	14	12	59	15	0	0
Middle Scorers	2	1	91	7	0	0
High Scorers	0	0	97	3	0	0

MC Item Option Discriminations			
A	B	C	D
-0.287	-0.308	0.421	-0.147



Notes:

Cindy drew a rectangle with a perimeter of 16 inches. The width of the rectangle is shown in the picture.



Perimeter = 16 inches

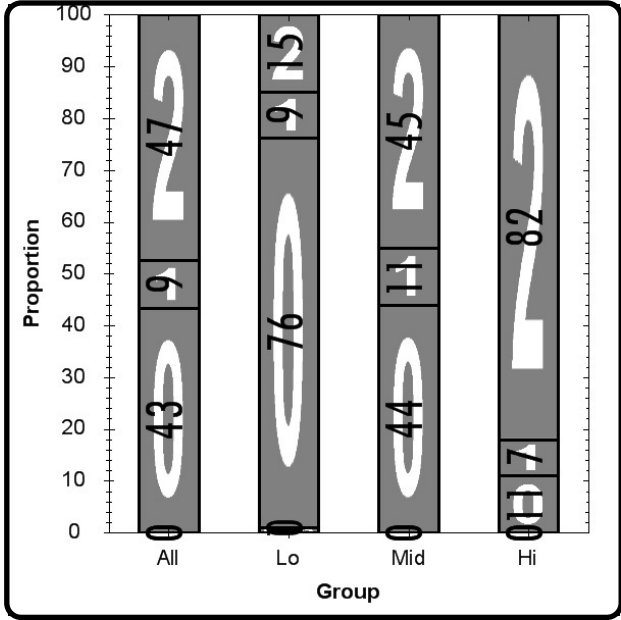
**Part A. What is the length of the rectangle Cindy drew?
Write your answer in the space provided.**

Length in Inches: _____

Part B. Show your work or explain your answer.

Type SR	Max Points 2	N Count 6532	Item Mean 1.040	Discrimination 0.414
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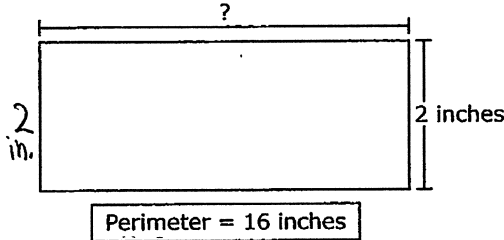
	0	1	2	Omit	Invalid
All	43	9	47	0	0
Low Scorers	76	9	15	1	0
Middle Scorers	44	11	45	0	0
High Scorers	11	7	82	0	0



Notes:



5 Cindy drew a rectangle with a perimeter of 16 inches. The width of the rectangle is shown in the picture.



Part A. What is the length of the rectangle Cindy drew? Write your answer in the space provided.

Length in Inches: 6 in. on each side.

Part B. Show your work or explain your answer.

$$\begin{array}{r} 16 \\ - 4 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 2 \\ + 2 \\ \hline 4 \end{array}$$

$$12 \div 2 = 6$$

6 in. 2 in.
+ 6 in. + 2 in.
12 in + 4 in = 16 in.

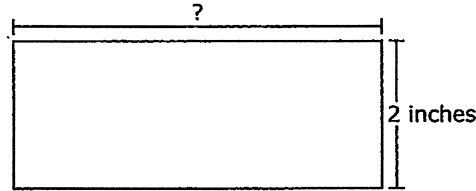
Stop. Do not go on to the next page. **STOP**

Score Point 2

The response is complete and accurate. Evidence of work involves sound reasoning. The rectangle dimensions are drawn and labeled. The response is based on calculation of the rectangle's perimeter ($16 - 4 = 12 \dots 12 \div 2 = 6$) and is adequate to support the solution (*6 in. on each side*).



5 Cindy drew a rectangle with a perimeter of 16 inches. The width of the rectangle is shown in the picture.



Perimeter = 16 inches

Part A. What is the length of the rectangle Cindy drew?
Write your answer in the space provided.

Length in Inches: 16

Part B. Show your work or explain your answer.

I added 6 inches.

Stop. Do not go on to the next page.

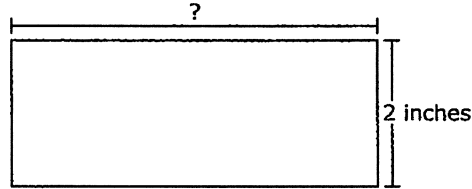


Score Point 1

The response is incomplete. Justification involves some reasoning (*I added 6 inches*), but is inadequate to support an accurate solution. Evidence of work based on calculation of the rectangle's perimeter is incomplete, and the response provides a different value than expected in the answer blank (*16*).



- 5 Cindy drew a rectangle with a perimeter of 16 inches. The width of the rectangle is shown in the picture.



Perimeter = 16 inches

- Part A. What is the length of the rectangle Cindy drew?
Write your answer in the space provided.

Length in Inches: 8

- Part B. Show your work or explain your answer.

I + would have to be 8 because
 $8 \times 2 = 16$ the perimeter.

Stop. Do not go on to the next page.



Score Point 0

The response shows no understanding of how to successfully complete the task (*It would have to be 8 because $8 \times 2 = 16$ the perimeter*). The student gives an incorrect solution for the length of the rectangle (8).

