



Message from Donna Watts, Coordinator for Mathematics

- The public release items in each grade DO NOT represent the blueprint of the test. You are seeing real items but only a subset of what a student would actually experience on the test itself.
- The PDF may LOOK like an actual test, however, it only contains LESS THAN 20 ITEMS in any grade, which is SIGNIFICANTLY LESS than the number of items a student actually answers to determine his/her score.
- While these items were used with students, remember objectives can and WILL be assessed in a variety of ways. With this released item, you are seeing only ONE way to assess that objective.
- We are planning to add answers, student responses and annotations of student responses along with a link between the objective and the item. As that information is reviewed, it will also be uploaded.

Continue to page 2 MSA Public Release Items →



MSA

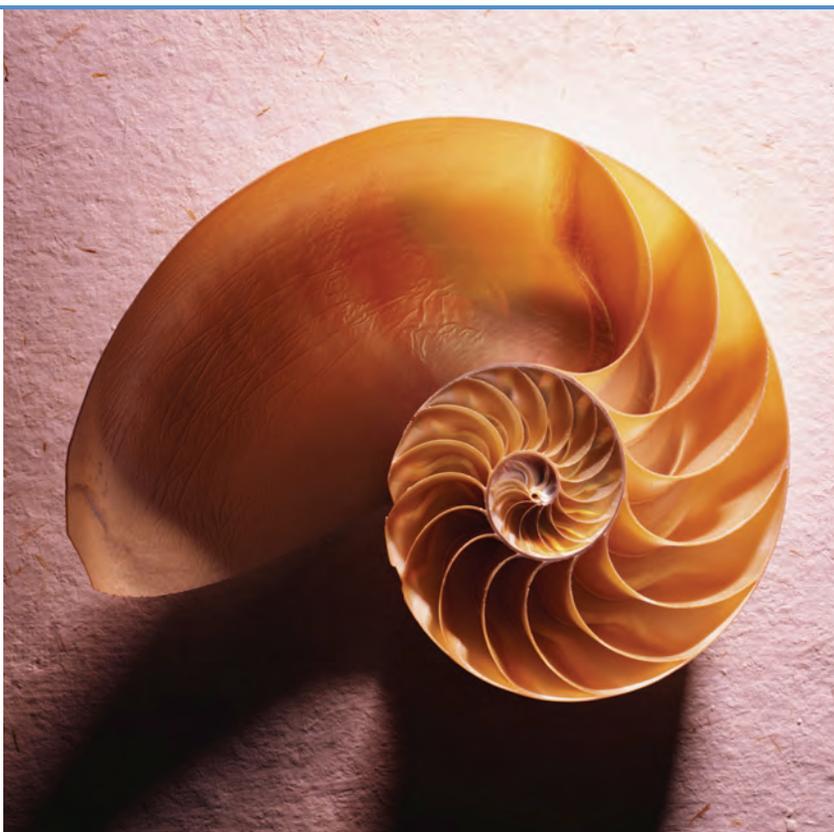
MARYLAND SCHOOL ASSESSMENT

MATHEMATICS PUBLIC RELEASE

Release Date: March 2009

GRADE

5



PEARSON





For selected-response questions, you may use the space inside the boxed area or scratch paper for notes and calculations. Be sure to fill in the bubble with your answer.

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1

Alexander and Ruth both collect video games. Alexander has twice as many video games as Ruth. Let r represent the number of video games Ruth has.

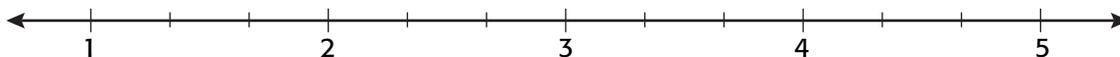
Which expression represents the number of video games Alexander has?

- (A) $2 - r$
- (B) $2 \div r$
- (C) $2 + r$
- (D) $2 \times r$



2

Look at this number line.



Step A

Plot a point on the number line that represents the location of $2\frac{1}{6}$.



Step B

- Explain why the point you plotted is correct. Use what you know about number lines in your explanation. Use words, numbers, and/or symbols in your explanation.
- Benjamin says that if he divides the number line between 2 and 3 into two equal parts, the location of the point $2\frac{1}{6}$ will change. Explain why Benjamin is correct or incorrect. Use what you know about number lines in your explanation. Use words, numbers, and/or symbols in your explanation.





3

Look at these solid geometric figures.

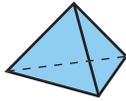


Figure M



Figure N

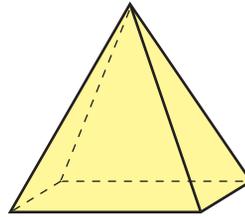


Figure P

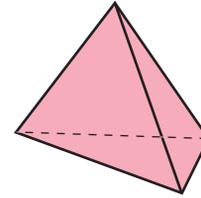


Figure Q

Which solid geometric figures are triangular pyramids?

- (A) figures M and P
- (B) figures M, N, and P
- (C) figures M and Q
- (D) figures M, N, and Q



4

Anna practiced drawing transformations of geometric figures across a line.

Which figure shows its reflection across the line?

Option A: A triangle with vertices at approximately (20, 80), (30, 70), and (35, 85) is shown above a horizontal line. Below the line is an identical triangle.

Option B: A quadrilateral with vertices at approximately (30, 50), (40, 40), (45, 55), and (35, 65) is shown above a horizontal line. Below the line is its mirror image across the line.

Option C: A quadrilateral with vertices at approximately (60, 25), (70, 35), (75, 50), and (65, 60) is shown above a horizontal line. Below the line is an identical quadrilateral.

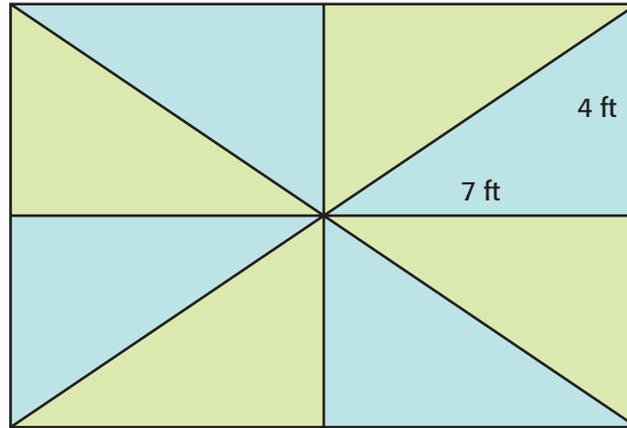
Option D: A pentagon with vertices at approximately (60, 50), (70, 40), (75, 55), (65, 65), and (60, 70) is shown above a horizontal line. Below the line is its mirror image across the line.



5

Nathan divided his rectangular garden into 8 sections that are the same size and shape.

NATHAN'S GARDEN



What is the area of the whole garden?

- (A) 28 square feet
- (B) 44 square feet
- (C) 112 square feet
- (D) 118 square feet



6

Michael made 72 pints of lemonade for his friends.

Step A

How many gallons of lemonade did Michael make?

_____ gallons

Step B

Explain how you found the number of gallons. Use what you know about equivalent units of measurement in your explanation. Use words, numbers, and/or symbols in your explanation.





7

Deslyn played a video game 5 times. The number of points she scored in each game is shown in the table.

DESLYN'S VIDEO GAME SCORES

Game	Points Scored
1	173
2	155
3	217
4	191
5	209

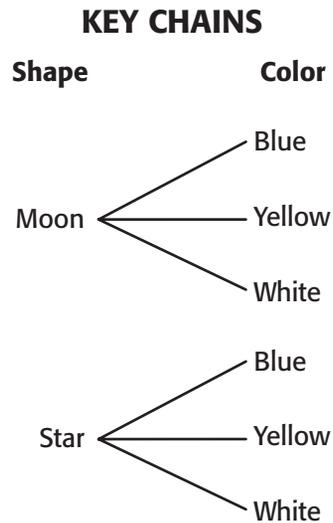
What is the mean number of points Deslyn scored?

- (A) 62
- (B) 189
- (C) 191
- (D) 209



8

Rose makes key chains using different beads. For each key chain, she combines 1 moon bead or 1 star bead with 1 blue, 1 yellow, or 1 white bead. This tree diagram shows all the possible key chains Rose can make.



How many different key chains can Rose make by combining beads of 1 shape and 1 color?

- (A) 2
- (B) 3
- (C) 6
- (D) 8



9

Stella has a box containing 12 cards that are the same size and shape. A cylinder is shown on 2 of the cards, a cube is shown on 6 of the cards, and a pyramid is shown on 4 of the cards. Stella picks one card from the box without looking.

What is the probability that the card Stella picks shows a pyramid?

$$\frac{1}{6}$$

(A)

$$\frac{1}{4}$$

(B)

$$\frac{4}{12}$$

(C)

$$\frac{6}{12}$$

(D)





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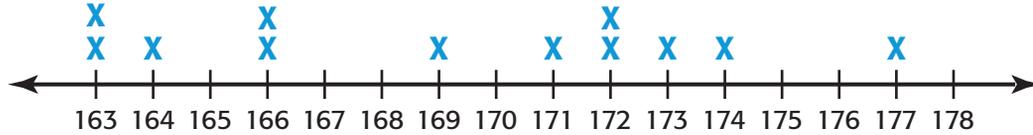
Do not write outside the boxed area for any question.



10

This line plot shows the number of fish on twelve fishing boats.

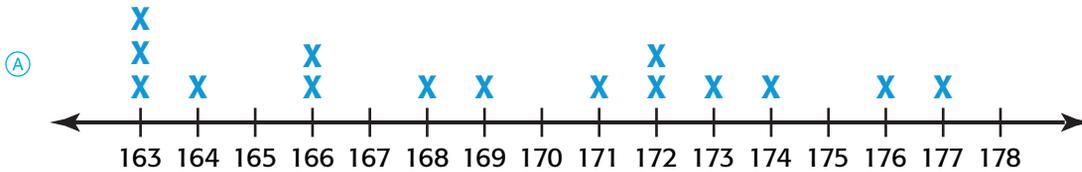
NUMBER OF FISH PER BOAT



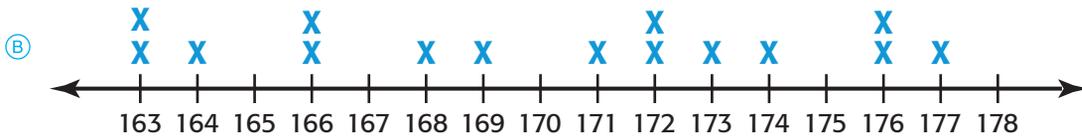
Four more fishing boats have 176, 163, 176, and 168 fish.

Which line plot correctly shows the new data added to the given line plot?

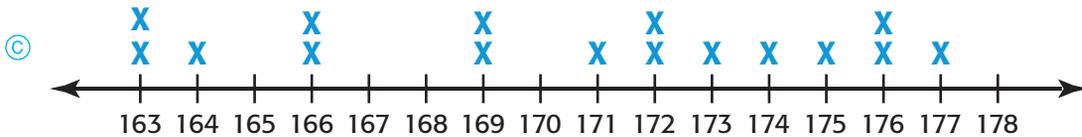
NUMBER OF FISH PER BOAT



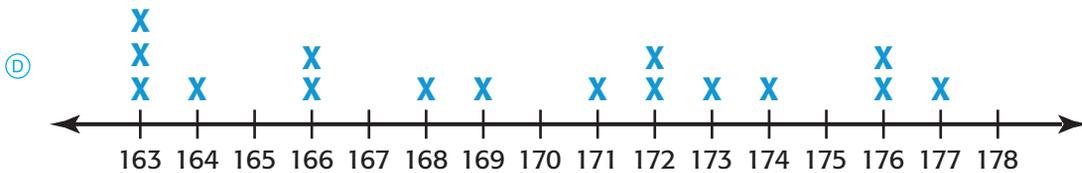
NUMBER OF FISH PER BOAT



NUMBER OF FISH PER BOAT



NUMBER OF FISH PER BOAT





11

Christina takes out the trash every 3 days. She cleans her room every 4 days. She feeds her pet turtle every 6 days. Christina took out the trash, cleaned her room, and fed her turtle today.

In exactly how many days will she do all three of these tasks again on the same day?

- (A) 6
- (B) 8
- (C) 12
- (D) 18



12

Tully prepared two candy recipes. The first recipe used $3\frac{3}{4}$ cups of sugar. The second recipe used $2\frac{2}{3}$ cups of sugar.

How much sugar did Tully use to make both recipes?

- (A) $5\frac{1}{12}$ cups
- (B) $5\frac{5}{12}$ cups
- (C) $6\frac{5}{12}$ cups
- (D) $6\frac{7}{12}$ cups





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