Common Core 1 Problem Set #7 **Name: _____**

Multiple Choice

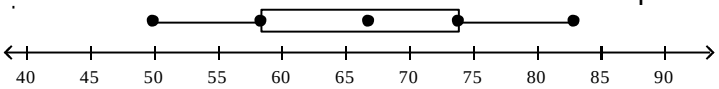
Identify the letter of the choice that best completes the statement or answers the question.

Solve the proportion.

____ 1. $\frac{w + 14}{4w + 6} = \frac{3}{4}$

$\frac{8}{19}$ $\frac{15}{28}$ $\frac{4}{19}$ $\frac{2}{7}$

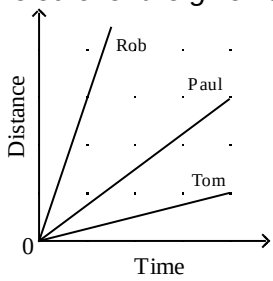
____ 2. Describe the data in the box-and-whisker plot.



The lowest value is 58.5 and the highest value is 74. The median is 67. At least half of the data are within 8.5 points of the median.
The values range from 50 to 83. At least half of the data are within 7 points of the median, 67.
The lowest value is 50 and the highest value is 83. The median is 67. At most half of the data are within 7 points of the median.
The values range from 50 to 83. At least half of the data are within 8.5 points of the median, 67.

Short Answer

Rob, Paul, and Tom walked along a straight line. Below is a graph representing the distance each traveled over the given time. Use the graph to answer the questions.

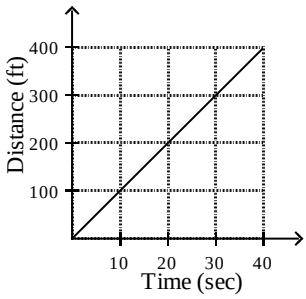


3. In the given graph, who walked the fastest? How can you tell?

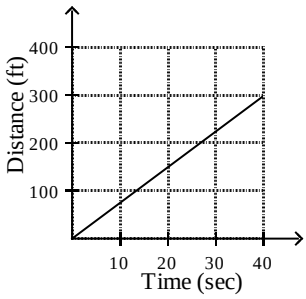
4. In the given graph, who walked the slowest? Is the slope of the line up or down?

Use the graph below to answer the given questions.

John's Graph



Bill's Graph



5. How far did John and Bill walk in 30 seconds?

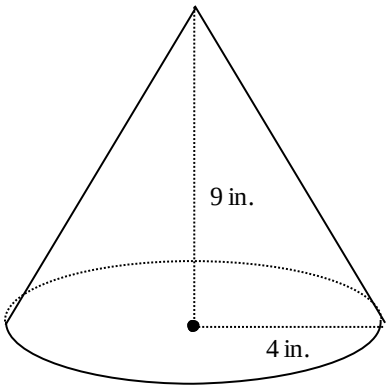
6. Who walked faster? Whose graph appears steeper?

7. The equation $a = 640s$ gives the relationship between s square miles and a acres. Pam owns 7.5 square miles of farmland. How many acres does she own?

8. You are designing a new container for powdered laundry detergent. You are considering a cylindrical container with a diameter of 14 inches and a height of 18 inches. Find the volume of this container to the nearest cubic unit.Use a calculator.

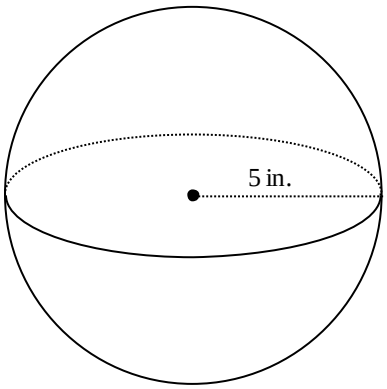
Find the volume of the cone to the nearest cubic unit. Use a calculator.

9.



Find the volume of the sphere to the nearest whole number. Use *p* = 3.14.

10.



Evaluate.

11. $3x^2 - 4$ for $x = 3$

x= _____

12. $y^2 + 2y + 5$ for $y = -5$

y= _____

Common Core 1 Problem Set #7
Answer Section

MULTIPLE CHOICE

1. C
2. D

SHORT ANSWER

3. Rob; The line for Rob is the steepest.
4. Tom; up
5. John: 300 ft; Bill: 200 ft
6. John; John
7. 4,800 acres
8. 2,771 $in.^3$
9. 151 $in.^3$
10. 524 $in.^3$
11. 23
12. 20