## DEPARTMENT OF EDUCATION

Leading the Drive to Top 5!

# PAWS Mathematics Grade 8 

## Released Items With Data

## 2014

00 Which point on the number line shown best represents $\sqrt{3}$ ?

A) Point $F$
B) Point G
C) Point H
D) Point J

00 Triangles $A B C, C D E$, and $E F G$ are shown on the coordinate grid.


Which ratio represents the value of the slope of $\overleftarrow{A G}$ ?
A) $\frac{A B}{E F}$
B) $\frac{C D}{D E}$
C) $\frac{A E}{E G}$
D) $\frac{G F}{F E}$

00 Two functions are given, one as a verbal description and one as an equation.

| Function 1 |
| :---: |
| The perimeter of a square, $y$, is equal to the <br> length of one side of the square, $x$, times 4. |
| Function $\mathbf{2}$ <br> $y=2 x+5$ |

Which of the following can be concluded about the two functions?
A) The rate of change for Function 1 is less than the rate of change for Function 2.
B) The rate of change for Function 1 is greater than the rate of change for Function 2.
C) For all positive inputs of $x$, the output for Function 1 is less than the output for Function 2.
D) For all positive inputs of $x$, the output for Function 1 is greater than the output for Function 2.

00 Two figures are shown on the coordinate grid.


Which sequence of transformations would map Figure A to Figure B?
A) Rotate Figure A $90^{\circ}$ clockwise about the origin and reflect the resulting figure across the $x$-axis.
B) Rotate Figure $\mathrm{A} 90^{\circ}$ clockwise about the origin and translate the resulting figure 7 units to the left.
C) Rotate Figure A $90^{\circ}$ counterclockwise about the origin and translate the resulting figure 6 units down.
D) Rotate Figure A $90^{\circ}$ counterclockwise about the origin and reflect the resulting figure across the $x$-axis.

00 An artist created a sculpture composed of 15 cones made out of concrete. Each cone was 7 inches tall and had a radius of 3 inches. Which value is closest to the total amount of concrete that the artist used to make the sculpture?
A) 165 cu in .
B) $247 \mathrm{cu} \mathrm{in}$.
C) 660 cu in .
D) 990 cu in .

00 The scores of 16 students on two of their math tests are shown in the scatter plot. A line has been drawn to show where the students' scores on both tests would be the same.


Which statement represents a valid conclusion that is best supported by this scatter plot?
A) The majority of students had a lower score on Test \#2 than Test \#1.
B) The majority of students had a higher score on Test \#2 than Test \#1.
C) The majority of students had a score that is less than or equal to 70 on both tests.
D) The majority of students had a score that is greater than or equal to 70 on both tests.

