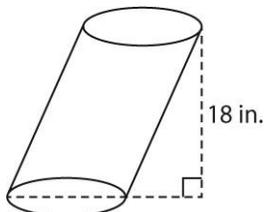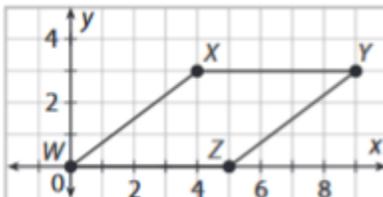Name _____ Date _____ Class_____

Midterm Review Integrated 3 Multiple Choice

1. The oblique cylinder shown below has a volume of 90π cubic inches. What is the radius of the base of the cylinder?
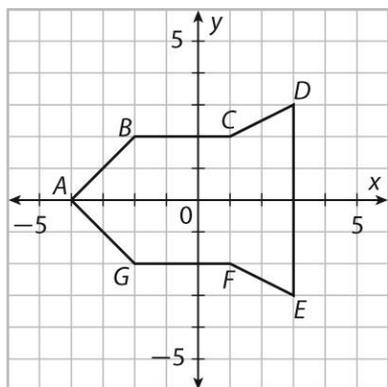

18 in.

2. Name all properties of a parallelograms?
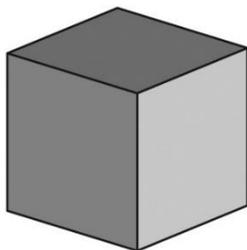
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3. Classify Quadrilateral *WXYZ*.

   a. Parallelogram
   b. Trapezoid
   c. Rectangle
   d. Rhombus

Use the figure for 4. The figure is symmetric about the *x*-axis.
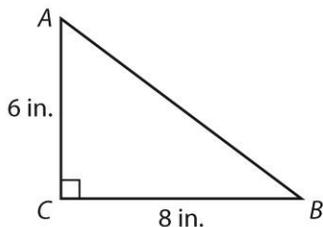

4. What is the area of the figure?

5. In the figure shown, what figure is a possible cross section of the cube?

Use the triangle shown for 6.

6. The dimensions of the triangle are increased by a scale factor of 5. What is the perimeter of the resulting triangle?

7. A rectangular closet is being designed so that it will have a capacity of 72 cubic feet. The height of the closet must be 5 feet and the width 2 feet. What must be the length of the closet? Round your answer to the nearest tenth of a foot.

8. What is a possible root for the polynomial $x^3 + 5x^2 - 4 = 0$.

9. Solve the equation $4x - 6 = 4x^2 - 12x + 9$

10. What are the roots of the function $f(x) = x^4 + 11x^2 + 18$?

11. Simplify $(2x^4 - 2x^3 - x^2) + (3x^4 + x^2 + x)$.

12. Factor $3x^2 - 2x - 8$

13. Find product of $(2x + 3y)(x + y)^2$

14. Find the inverse of $g(x) = -3x - 5$.

15. Describe how the graph of $g(x) = (6x)^3 + 6$ is related to the graph of $f(x) = x^3$.