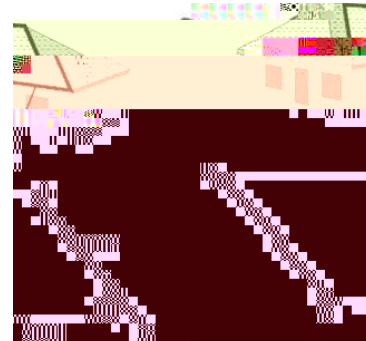


1. A swimming pool is in the shape of a right rectangular prism. The pool is 40 feet long, 20 feet wide, and 4 feet deep. The cost of repainting the pool is \$2.50 per square foot. What is the total cost of repainting the 4 walls and the floor of the pool?

A. \$1,200
 B. \$3,200
 C. \$8,000
 D. \$10,000

2. Part of a roof is shaped like a parallelogram, as shown below. Find the correct measures.

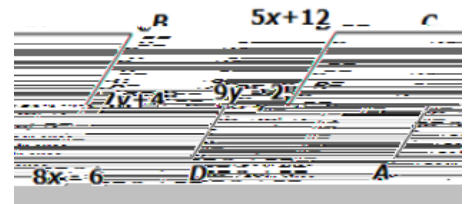


The measure of $\angle A$ is _____ $^\circ$.

The measure of $\angle B$ is _____ $^\circ$.

The measure of $\angle C$ is _____ $^\circ$.

3. Examine parallelogram $ABCD$ below. In order to determine the length of each side of the parallelogram, which of the following equations would need to be used? Select ALL that apply.



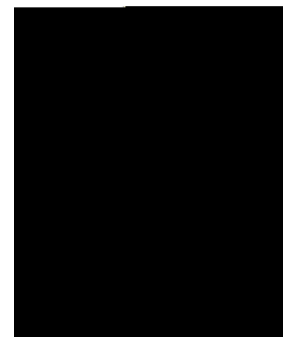
$5x + 12 + 8x - 6 = 180$

$9y - 2 + 7y + 4 = 180$

$5x + 12 = 8x - 6$

$9y - 2 = 7y + 4$

4. A grain silo is constructed in the shape of an inverted cone atop a cylinder as shown. What is the volume of this grain silo?



A. 1,350 cubic feet
 B. 1,890 cubic feet
 C. 3,240 cubic feet
 D. 7,560 cubic feet

5. This equation describes a circle.

What are the center and radius of the circle?

A. The center is (3, -5) and the radius is $\sqrt{65}$.

B. The center is (-3, 5) and the radius is $\sqrt{65}$.

C. The center is (3, -5) and the radius is $\sqrt{31}$.

D. The center is (-3, 5) and the radius is $\sqrt{31}$.

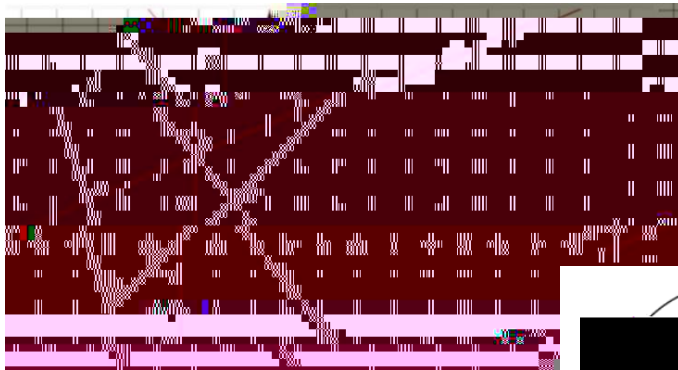
6. Which procedure can be used to locate the center of a circle inscribed in a triangle?

- A. construct the three medians of the triangle
- B. construct the three altitudes of the triangle
- C. construct the three angle bisectors of the triangle
- D. construct the three perpendicular bisectors of the sides of the triangle

7. A cube has a surface area of 384 square inches. What is the length of one side of the cube in inches?

- A. 4
- B. 5.7
- C. 7.3
- D. 8

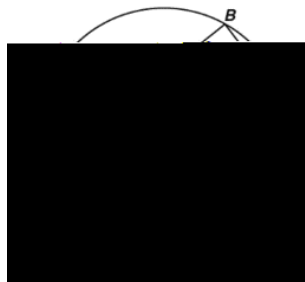
8. In the graph below is a triangle with its circumcenter at point . If you created a circle with a center at point that passed through point then the length of the radius would also be equal to which segments? Select ALL that apply.



- ☐ $\overline{EC}$
- ☐ $\overline{EF}$
- ☐ $\overline{AC}$
- ☐ $\overline{EB}$
- ☐ $\overline{HB}$
- ☐ $\overline{FA}$

9. In circle , which angle is equal to 90° ?

- A.
- B.
- C.
- D.

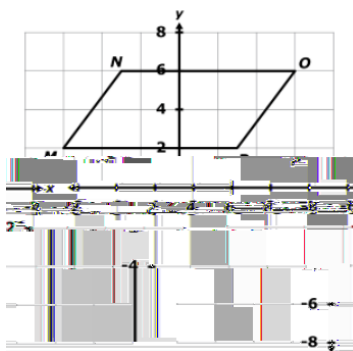


10. What is the equation of the circle in the diagram below?

- A. $(x - 4)^2 + (y - 3)^2 = 2$
- B. $(x - 3)^2 + (y - 4)^2 = 2$
- C. $(x - 3)^2 + (y - 4)^2 = 4$
- D. $(x - 4)^2 + (y - 3)^2 = 4$



11. Consider parallelogram shown below. Find the lengths of each measurement.



12. Use the reasons in the answer choice box to complete the proof. Not all choices will be used.

13. A portable speaker is shown in the figure. What is the volume of the speaker to the nearest cubic centimeter?

14. Find the area of the shaded sector. Round your answer to the nearest tenth. Use 3.14 for π .

A. 141.3 m^2

B. 70.7 m^2

C. 22.5 m^2

D. 3.8 m^2

15. The following is the graph of x