

NAME



Find the correct answer for each of the following. Clearly circle or bubble in your answer as necessary. *Work must be shown in order to receive credit*!

7. What is the volume of the pyramid shown below?



- A. 168 cm<sup>3</sup>
- B. 112 cm<sup>3</sup>
- C. 56 cm<sup>3</sup>
- D. 48 cm<sup>3</sup>

8. Find the surface area of the net if the center is a 9-inch square and each triangle has a height of 12 inches.



9. A pyramid has a rectangular base that is 16 meters long and 21 meters wide. The height of the pyramid is 15 meters. What is the volume of the pyramid?

- A. 1,450 m<sup>3</sup>
- B. 1,680 m<sup>3</sup>
- C. 1,880 m<sup>3</sup>
- D. 2,100 m<sup>3</sup>

10. Triangles ABC and DEF are similar. What is the length of x?



Record your answer and fill in the bubbles on the grid below. Be sure to use correct place value.

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- 11. M is the midpoint of  $\overline{AB}$ . If AM = (2x + 5) and MB = (3x - 2), what is AB?
  - A. 38
  - B. 19
  - C. 11
  - D. 7

12. Quadrilateral RSTU is a parallelogram. What other information would allow you to prove that RSTU is a rectangle?

- A. Opposite angles are congruent.
- B. Opposite sides are congruent.
- C. The diagonals bisect the angles.
- D. The diagonals are congruent.

13. The measure of the complement of an angle is 59°. What is the measure of the supplement of the angle?

- A. 31°
- B. 39°
- C. 121°
- D. 149°

14. A 30-m-by-60-m rectangle contains a rectangle and a right triangle. The smaller rectangle is 7.5 m by 10m. One leg of the right triangle is 15 m and the hypotenuse is 25 m. Find the probability that a point chosen randomly inside the bigger rectangle will not be inside either the small rectangle or the triangle.

- A. 0.13
- B. 0.21
- C. 0.79
- D. 0.88