Pre-test **Unit Pyramids, Cones, and Sphere** **Time 10 minutes**

Subject Mathematics Semester 1 **Mathayomsuksa 3** **Questions 10**

Direction: Choose the best answer.

1. Which statement is true? (Remember, MA 2.1 G.9/1)

A. Total surface area of pyramid = Area of base

B. Total surface area of pyramid = Area of base + All lateral triangular areas

C. Total surface area of pyramid = Area of base + All lateral rectangle areas

D. Total surface area of pyramid = Area of base + All lateral rectangle areas

2. A hexagonal pyramid with the volume of 240 unit^3 and a base area of 36 units^2. What is the height of the pyramid? (Understand, MA 2.1 G.9/1)

A. 20 units

B. 24 units

C. 28 units

D. 30 units

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3. What is the volume of a square pyramid whose base length is 6 inches and slant height of 5 inches? (Analysis, MA 2.1 G.9/1)

A. 60 $inch^3$

B. 72 $inch^3$

C. 144 $inch^3$

D. 180 $inch^3$

4. A paper cone has a diameter of 10 cm and a slant height of 13 cm. What is the total surface area of the cone? (Take $\pi \approx 3.14$) (Understand, MA 2.1 G.9/1)

A. 352.64 cm^2

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B. 282.6 cm^2

C. 200.96 cm^2

D. 174.62 cm^2

5. A cone has a base of radius of 12 units and a height of 35 units. What is the volume of the cone? (Take $\pi \approx \frac{22}{7}$) (Understand, MA 2.1 G.9/1)

A. 1,76- $units^3$

B. 2,640 $units^3$

C. 5,280 $units^3$

D. 15,840 $units^3$

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6. The volume of a cone with a height of 42 units is 704 units^3 What is the radius of the base? (Take $\pi \approx \frac{22}{7}$) (Understand, MA 2.1 G.9/1)

A. 4 units

B. 6 units

C. 7 units

D. 12 units

7. What is the surface area of a sphere with a diameter of 14 cm? (Take $\pi \approx \frac{22}{7}$) (Understand, MA 2.1 G.9/1)

A. 312 cm^2

B. 578 cm^2

C. 616cm^2

D. 796 cm^2

8. A hemisphere has a curved surface area of 1,232 units^2 What is the length of diameter? (Take $\pi \approx \frac{22}{7}$) (Analysis, MA 2.1 G.9/1)

A. 21 units

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B. 28 units

C. 32 units

D. 35 units

9. A steel ball has a diameter of 8 cm. Find the volume of the ball (Take $\pi \approx 3.14$)

(Understand, MA 2.1 G.9/1)

A. 66.99 cm^3

B. 114.04 cm^3

C. 193.14 cm^3

D. 267.95 cm^3

10. A solid steel consists of a cone and a hemisphere which share a common base. The cone has a height of 8 feet and base radius of 6 feet. What is the volume of the steel?

(Application, MA 2.1 G.9/1)

A. 96π $feet^3$

B. 124π $feet^3$

C. 144π $feet^3$

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D. 240π feet^3