VOLUME: CYLINDERS AND CONES

Find the volume, V, of each figure. Express answers in terms of π.

1. Cup

r: 3 cm; h: 7 cm

V: _____

2. Frying Pan
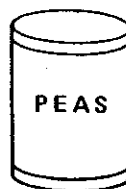
r: 15 cm; h: 3 cm

V: _____

3. Can of Peas

PEAS

r: 3.5 cm; h: 11 cm

V: _____

4. Planter
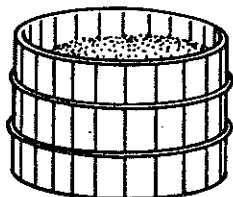
r: 2 ft; h: 3 ft

V: _____

5. Can of Tuna

TUNA

r: 4 in; h: 2 in

V: _____

6. Waste Paper Basket
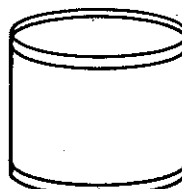
r: 5 in; h: 13 in

V: _____

7. Ice Cream Sign

2 m

3 m

V: _____

8. Paper Cup

12 mm

9 mm
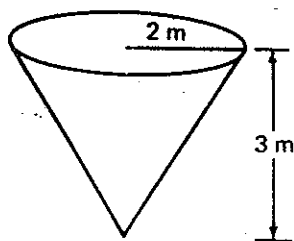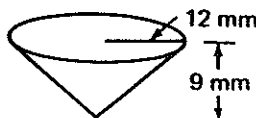
V: _____

9. Hanging Planter

1 ft

3 ft
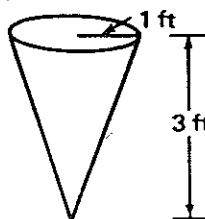
V: _____

10. A cylindrical gasoline storage tank has a diameter of 24 meters and a height of 9 meters. What is the volume of the tank?

_____

11. A cylindrical pencil holder has a volume of 122.5 π cubic inches. If its height is 10 ~~inches~~, find the radius of its base.
inches

_____

12. A cylinder has a radius of $\sqrt{30}$ meters and a height of $\sqrt{12}$ meters. Find its volume. Express the answer in simplest radical form.

_____

13. Find the volume of a cone if its height is 15.6 feet and the radius of its base is $\sqrt{5}$.

_____

14. The volume of a cone-shaped funnel is 8 π cm³. If the funnel has a height of 6 centimeters, what is the radius of its base?

_____

Scrambled

32π
12π
26π
432π
675π
63π
π
4π
134.75π
60√3π
3.5
325π
1296π

2

PRACTICE WORKSHEET

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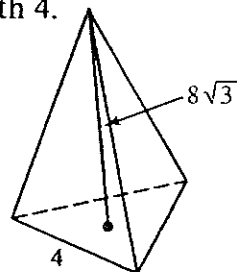**Find the volume of each pyramid.**

1. Base is a rectangle.

$V =$ _____
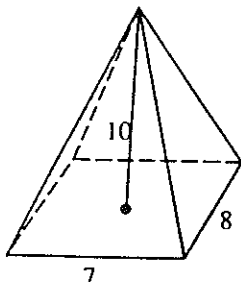
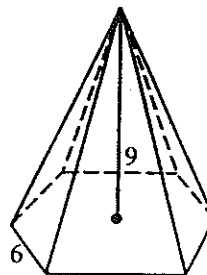**2.** Base is an equilateral triangle with sides of length 4.

$V =$ _____

3. Base is a pentagon with an area of 28.

$V =$ _____
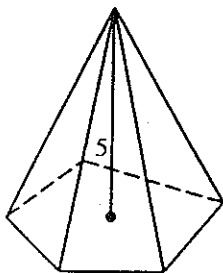
4. regular pyramid

$V =$ _____

5. Base is an isosceles triangle with sides of lengths 13, 13, and 10.

$V =$ _____
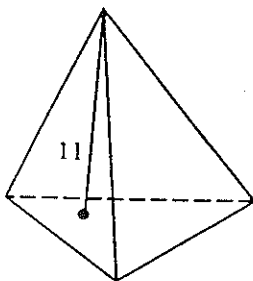
6. Base is an equilateral triangle with sides of length 5.

$V =$ _____
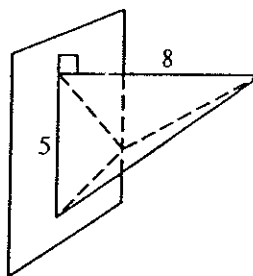
7. A pyramid has a right triangular base with legs 3 ft and 4 ft long. If the height of the pyramid is 6.5 ft, find its volume. _____

8. A pyramid has a volume of 108 cu ft and a base area of 27 cu ft Find its height. _____

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Scrambled

162√3
12
13
186 2/3
32
46 2/3
220
16 2/3 √3

LSA & TSA--More Practice
Cylinders & Cones

Name_____ Assign#_____
Date_____Per_____

For each of problems 1-9 on Side 1 of the **Volume: Cylinders & Cones** worksheet, calculate the LSA and TSA for each object listed-- assuming it to be a perfect cylinder or cone with the dimensions given in the problem. Show All Work & use appropriate units.
(Hints for 7-9) Remember the Pythagorean Theorem!

1)

LSA = _____

TSA = _____

2)

LSA = _____

TSA = _____

3)

LSA = _____

TSA = _____

4)

LSA = _____

TSA = _____

5)

LSA = _____

TSA = _____

6)

LSA = _____

TSA = _____

7)

LSA = _____

TSA = _____

8)

LSA = _____

TSA = _____

9)

LSA = _____

TSA = _____

Scrambled Answer Key
180π sq in
90π sq cm
42π sq cm
√10π + π sq ft
130π sq in
77π sq cm
12π sq ft
16π sq in
2√13 π sq m
20π sq ft
101.5π sq cm
2√13 π + 4π sq m
60π sq cm
324π sq mm
√10π sq ft
540π sq cm
180π sq mm
48π sq in