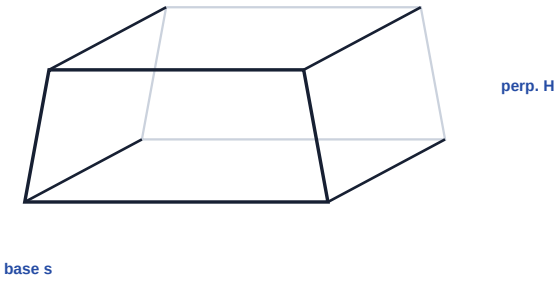
Math Sheet

Name _____ Score _____ Teacher _____ Date _____

Volume of Solids

Find the volume. sqrt(n) means the square root of n. Use calculator pi, retain intermediate precision, and round the final answer to the nearest hundredth.

1. Right square prism: Find the volume.

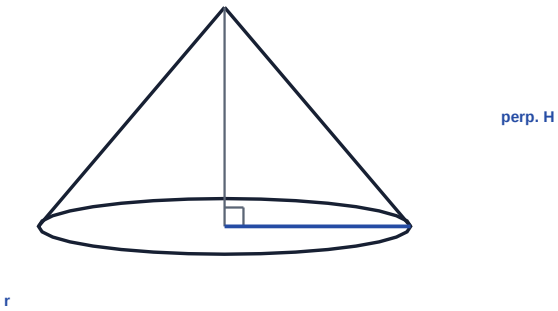


not to scale

Given: base side = 5 yd; prism height = 13 yd

Formula and work:

2. Right cone: Find the volume.



not to scale

Given: radius = 6 ft; perpendicular height = 8 ft

Formula and work:

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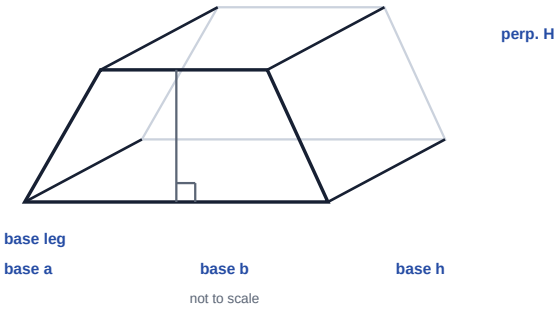
Volume of Solids

Find the volume. sqrt(n) means the square root of n. Use calculator pi, retain intermediate precision, and round the final answer to the nearest hundredth.

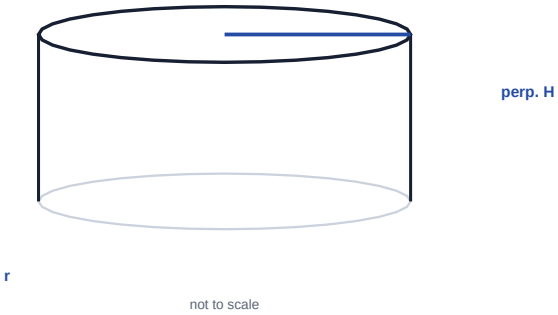
3. Right trapezoidal prism: Find the volume.



Given: short parallel side = 5 cm; long parallel side = 13 cm; trapezoid height = 8 cm; equal base leg = sqrt(80) cm; prism length = 13 cm

Formula and work:

4. Right cylinder: Find the volume.



Given: radius = 5 in; cylinder height = 10 in

Formula and work:

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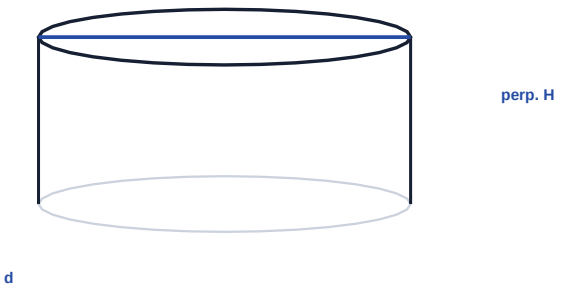
Volume of Solids

Find the volume. sqrt(n) means the square root of n. Use calculator pi, retain intermediate precision, and round the final answer to the nearest hundredth.

5. Right cylinder: Find the volume.

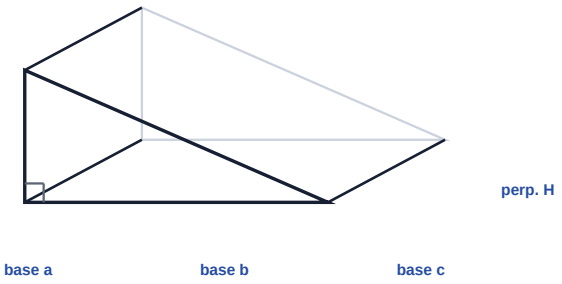


not to scale

Given: diameter = 10 mm; cylinder height = 16 mm

Formula and work:

6. Right prism with a right-triangle base: Find the volume.



not to scale

Given: base leg = 6 yd; base height = 8 yd; base hypotenuse = 10 yd; prism length = 5 yd

Formula and work:

Math Sheet

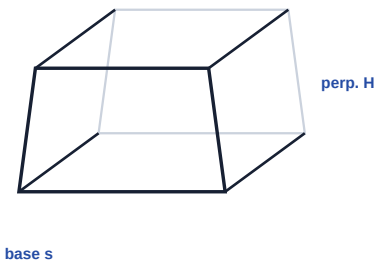
Name _____ Score _____ Teacher _____ Date _____

Volume of Solids

Worked Answer Key

Find the volume. sqrt(n) means the square root of n. Use calculator pi, retain intermediate precision, and round the final answer to the nearest hundredth.

1. **Right square prism: Find the volume.**



not to scale

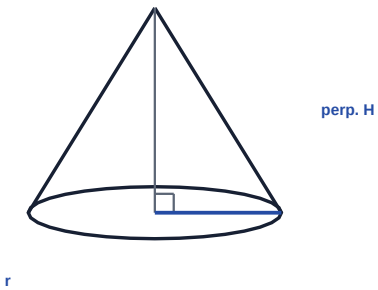
Given: base side = 5 yd; prism height = 13 yd

Volume: V = BH

Substitute: B=(5)^2; P=4(5); H=13; V=((5)^2)(13)

Answer: 325.00 yd^3

2. **Right cone: Find the volume.**



not to scale

Given: radius = 6 ft; perpendicular height = 8 ft

Volume: V = pi*r^2*h/3

Substitute: r=6; h=8; V=pi*(6)^2(8)/3

Answer: 301.59 ft^3

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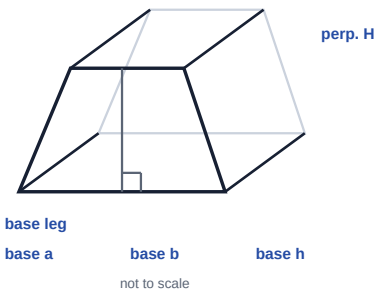
Volume of Solids

Worked Answer Key

Find the volume. sqrt(n) means the square root of n. Use calculator pi, retain intermediate precision, and round the final answer to the nearest hundredth.

3. **Right trapezoidal prism: Find the volume.**



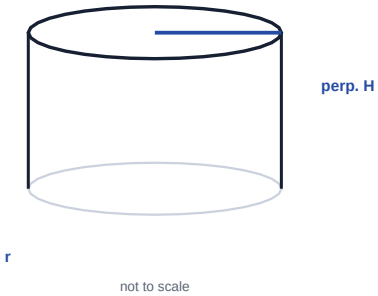
Given: short parallel side = 5 cm; long parallel side = 13 cm; trapezoid height = 8 cm; equal base leg = sqrt(80) cm; prism length = 13 cm

Volume: V = BH

Substitute: B=(5+13)(8)/2; P=5+13+2(sqrt(80)); H=13; V=((5+13)(8)/2)(13)

Answer: 936.00 cm^3

4. **Right cylinder: Find the volume.**



Given: radius = 5 in; cylinder height = 10 in

Volume: V = pi*r^2*h

Substitute: r=5; h=10; V=pi*(5)^2(10)

Answer: 785.40 in^3

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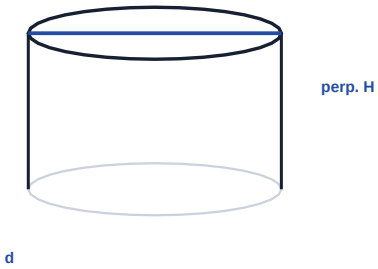
Volume of Solids

Worked Answer Key

Find the volume. sqrt(n) means the square root of n. Use calculator pi, retain intermediate precision, and round the final answer to the nearest hundredth.

5. **Right cylinder: Find the volume.**



not to scale

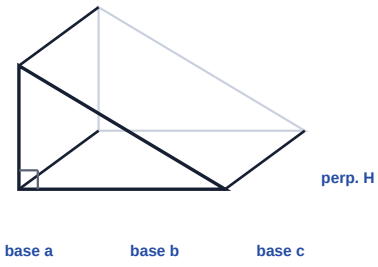
Given: diameter = 10 mm; cylinder height = 16 mm

Volume: V = pi*r^2*h

Substitute: r=10/2; h=16; V=pi*(10/2)^2(16)

Answer: 1256.64 mm^3

6. **Right prism with a right-triangle base: Find the volume.**



not to scale

Given: base leg = 6 yd; base height = 8 yd; base hypotenuse = 10 yd; prism length = 5 yd

Volume: V = BH

Substitute: B=(6)(8)/2; P=6+8+10; H=5; V=((6)(8)/2)(5)

Answer: 120.00 yd^3