May 27, 2011

We only have single digit
days left of school!

Today's Agenda ~

Correct Surface Area
of Cylinders worksheet
Cylinder Volume notes

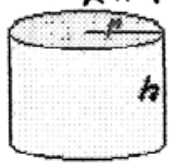
Homework: Cylinder Volume worksheet

# Find the Surface Area

$A = 2\pi rh + 2\pi r^2$

NAME Key

1) $A = 2\pi 9 \cdot 4 + 2\pi 9^2$

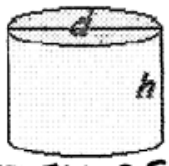



$= 734.76$

radius = 9

height = 4

2) $A = 2\pi 3.5 \cdot 11 + 2\pi 3.5^2$



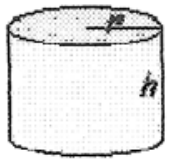

$= 318.71$

$r = 7 \div 2 = 3.5$

diameter = 7

height = 11

3) $A = 2\pi 5 \cdot 20 + 2\pi 5^2$




$= 785$

radius = 5

height = 20

4) $A = 2\pi 1 \cdot 8 + 2\pi 1^2$

$= 56.52$

$radius = 2 \div 2 = 1$

diameter = 2

height = 8

5) $A = 2\pi 6 \cdot 15 + 2\pi 6^2$

$= 791.28$

radius = 6

height = 15

6) $A = 2\pi 2 \cdot 14 + 2\pi 2^2$

$= 200.96$

radius = 2

height = 14

7) $A = 2\pi 8 \cdot 10 + 2\pi 8^2$

$= 904.32$

radius = 8

height = 10

8) $A = 2\pi 1 \cdot 13 + 2\pi 1^2$

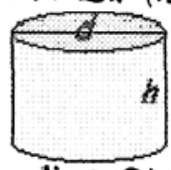
$= 87.92$

$radius = 2 \div 2 = 1$

diameter = 2

height = 13

9) $A = 2\pi 4.5 \cdot 10 + 2\pi 4.5^2$




$= 409.77$

$radius = 9 \div 2 = 4.5$

diameter = 9

height = 10

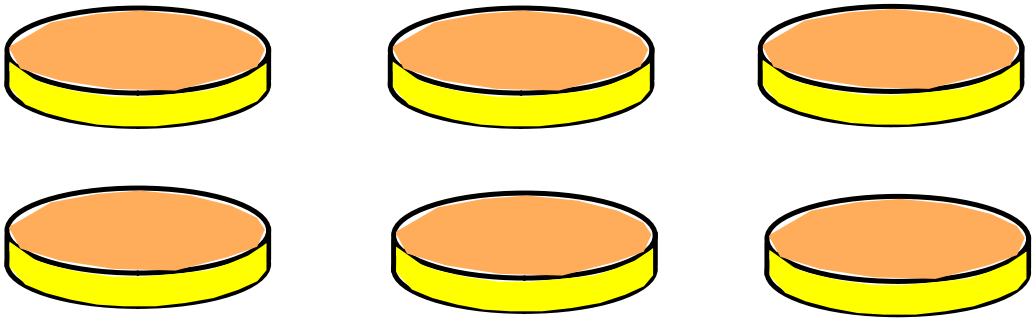
Student Name: _____ Score:

## Surface Area of a cylindrical prism

| | Work Space |
|---|---|
| Find the surface area of a cylindrical prism with radius 5 cm and height 8 cm.<br><br>Answer: $408.2cm^2$ | $A=2\pi 5\cdot 8+2\pi 5^2$ |
| Diameter and height of a cylinder is 5 feet and 12 feet respectively. Find the surface area of a cylinder.<br><br>Answer: $227.65ft^2$ | $D=5ft \quad R=5\div 2=2.5$<br>$H=12ft$<br>$A=2\pi 2.5(12)+2\pi 2.5^2$ |
| Radius = 3.2 yard; Height = 7 yard. Find the surface area of a cylinder.<br><br>Answer: $204.98yd^2$ | $A=2\pi 3.2\cdot 7+2\pi 3.2^2$ |
| Find the surface area of a cylindrical prism with diameter 6 inches and height 7.5 inches.<br><br>Answer: $197.82in^2$ | $D=6inches \quad R=6\div 2=3$<br>$H=7.5inches$<br>$A=2\pi 3\cdot 7.5+2\pi 3^2$ |
| Find the surface area of a cylindrical tank with radius 4 ft and height 7.2 feet. Round the answer to the nearest hundredth place.<br><br>Answer: $281.34ft^2$ | $A=2\pi 4\cdot 7.2+2\pi 4^2$ |

Cylinders can be made by stacking discs.

Watch the cylinder be made...



Cylinders can be made by stacking discs.

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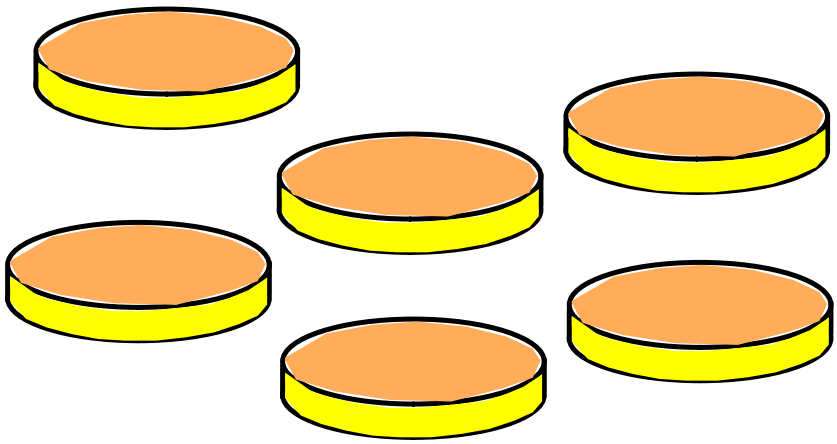

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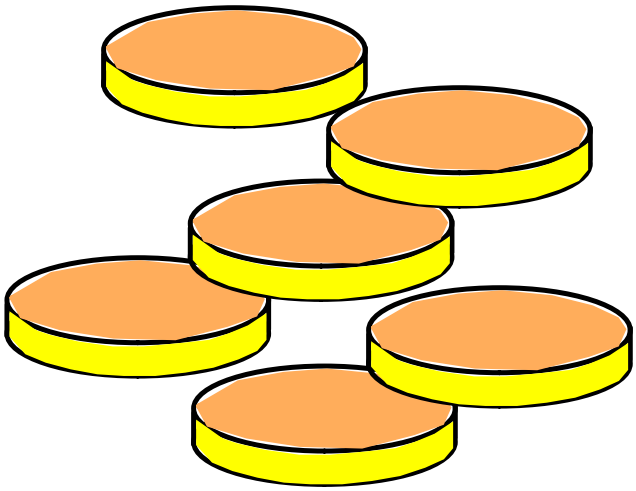

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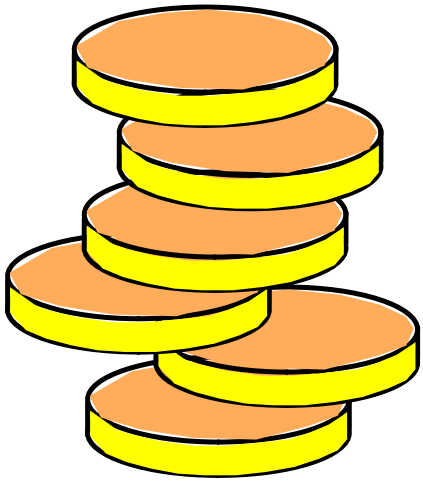

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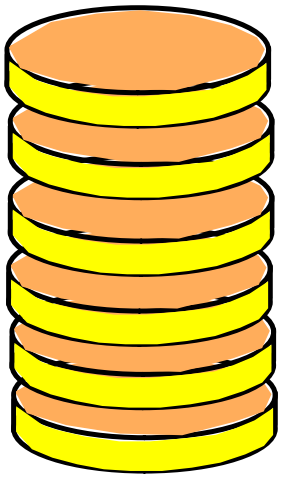

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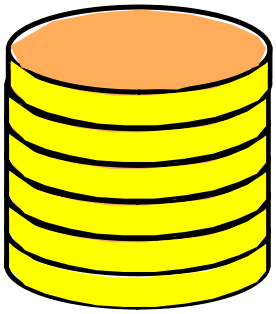
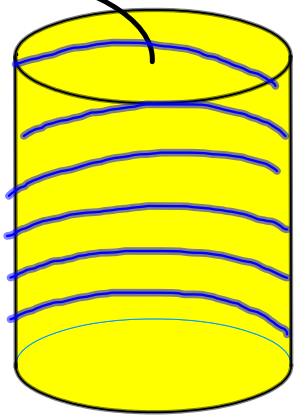


To find the Volume of a Cylinder,
use this formula

$$V = Bh$$

B = area of base
h = height
*V* = Volume

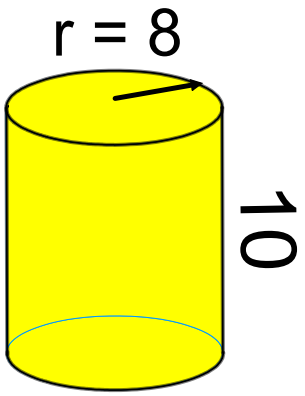


$$V = Bh$$

$$V = \pi \cdot r^2 \cdot h$$

So let's practice...

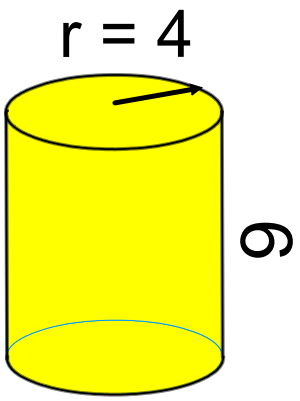
Find the volume of these cylinders.




$V = \pi \cdot r^2 \cdot h$

$V = \pi \cdot 8^2 \cdot 10$

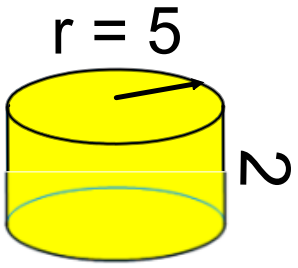
$V = 2009.6$




$V = \pi \cdot r^2 \cdot h$

$V = \pi \cdot 4^2 \cdot 6$

$V = 301.44$




$V = \pi \cdot r^2 \cdot h$

$V = \pi \cdot 5^2 \cdot 2$

$V = 157$

# Homework:
# Cylinder Volume worksheet