May 26, 2011

Thank you Harmon Killebrew!
Ready for some cylinder surface area and volume? I hope so, because thats what we are learning about today.

Today's Agenda ~

- Correct Circle worksheet
- Talk About the Test
- Cylinder notes

Homework:Cylinder Surface Area worksheet

Chapter 5 Preview/ Refresher

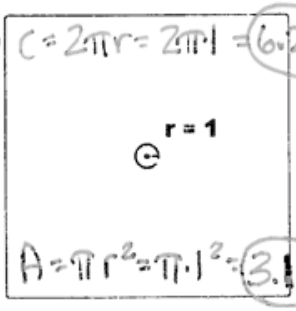
Area, Circumference from Radius, Diameter
Version 1

Name: Key

Calculate the area and circumference of each circle. Use pi=3.14.

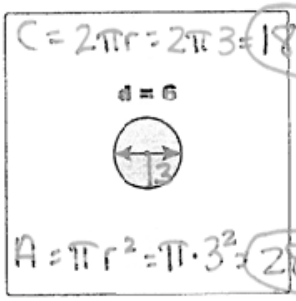
$C = 2\pi r = 2 \cdot \pi \cdot 9 = 56.52$

$A = \pi r^2 = \pi \cdot 9^2 = 254.34$



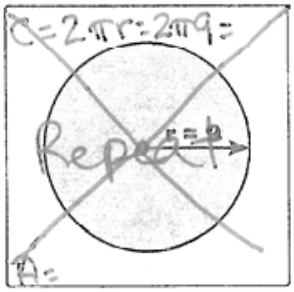
$C = 2\pi r = 2\pi 1 = 6.28$

$A = \pi r^2 = \pi \cdot 1^2 = 3.14$



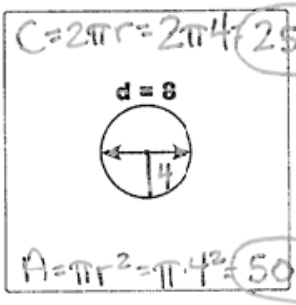
$C = 2\pi r = 2\pi 3 = 18.84$

$A = \pi r^2 = \pi \cdot 3^2 = 28.26$



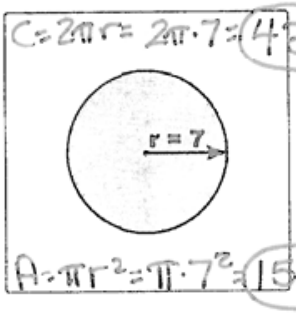
$C = 2\pi r = 2\pi 9 =$

$A =$



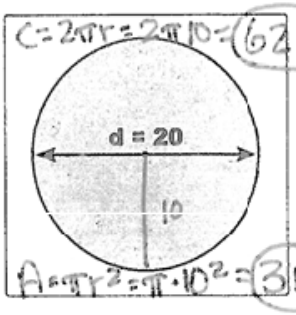
$C = 2\pi r = 2\pi 4 = 25.12$

$A = \pi r^2 = \pi \cdot 4^2 = 50.24$



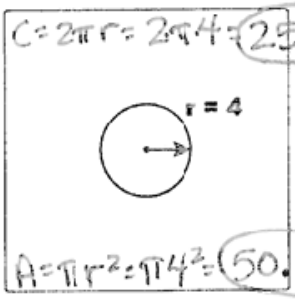
$C = 2\pi r = 2\pi \cdot 7 = 43.96$

$A = \pi r^2 = \pi \cdot 7^2 = 153.86$



$C = 2\pi r = 2\pi 10 = 62.8$

$A = \pi r^2 = \pi \cdot 10^2 = 314$



$C = 2\pi r = 2\pi 4 = 25.12$

$A = \pi r^2 = \pi 4^2 = 50.24$

$A = \pi r^2$

$C = 2\pi r$

Chapter 5 - Preview/Refresher

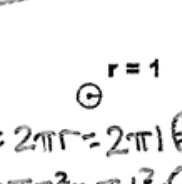
Calculate Circle Radius, Diameter, Circumference, Area 1
Version 1

Name: _____

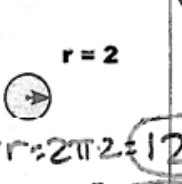
Calculate the radius, diameter, area and circumference Use pi=3.14

R=7 D=2r=2·7=14


C=2πr=2π7=43.96
A=πr²=π7²=153.86

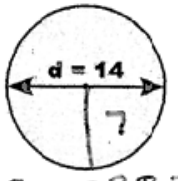
R=1 D=2·r=2·1=2


C=2πr=2π1=6.28
A=πr²=π·1²=3.14

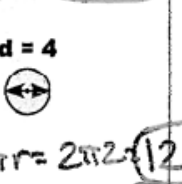
R=2 D=2·r=2·2=4


C=2πr=2π2=12.56
A=πr²=π·2²=12.56

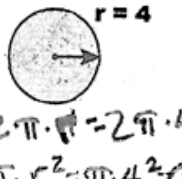
A=πr²
28.26/π = πr²/π
a = 28.26
√9 = √r²
3=r
R=3
D=2·3=6
C=2πr=2π3=18.84
A=28.26

R=7 D=14


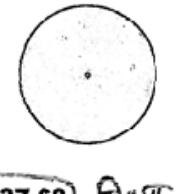
C=2πr=2π·7=43.96
A=π·r²=π·7²=153.86

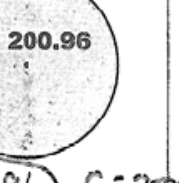
R=2 D=4


C=2πr=2π2=12.56
A=πr²=π·2²=12.56

R=4 D=8


C=2π·r=2π·4=25.12
A=π·r²=π·4²=50.24

R=6 D=12

c = 37.68
A=π·r²=π·6²=113.04
C÷2÷π=r
37.68÷2÷π=6

R=8 D=8·2=16


A=200.96
C=2πr=2π·8=50.24
A÷π=200.96÷π=64
√64=r=8

$A = \pi r^2$

$C = 2\pi r$

Test Information

#10 - extra credit (6 points)

Test Corrections

After school session TODAY

- I will help with corrections.

Before school TOMORROW at 7:10

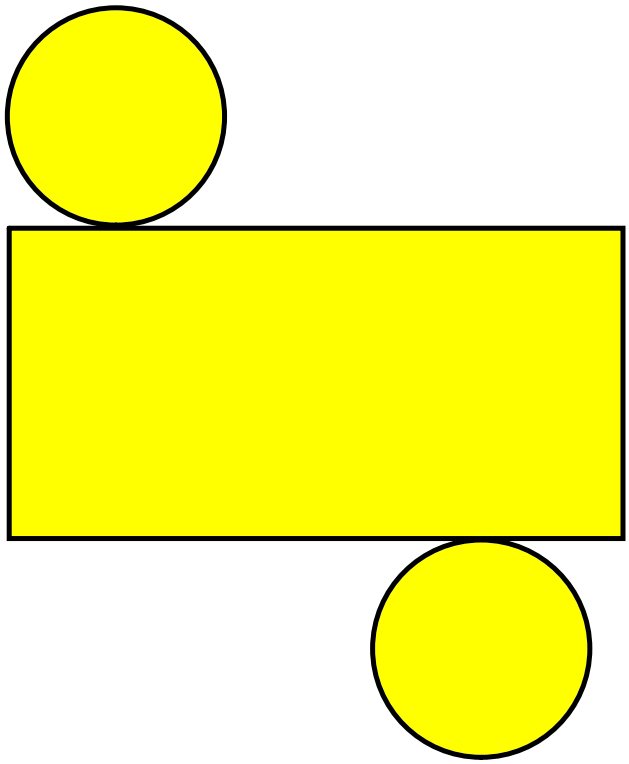
- I will help with corrections.

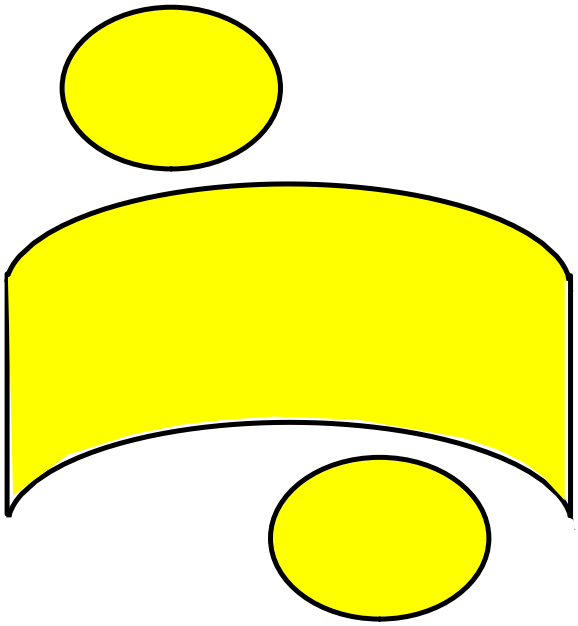
Or you can correct on your own with the help of someone else who knows how to do the problems.

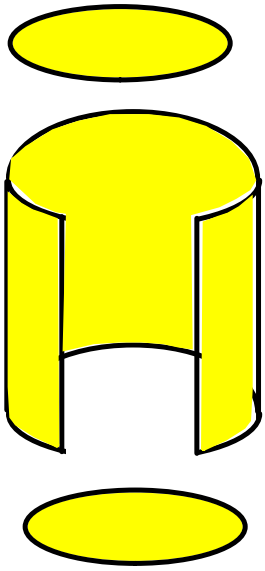
Cylinders can be made with 3 pieces of paper:

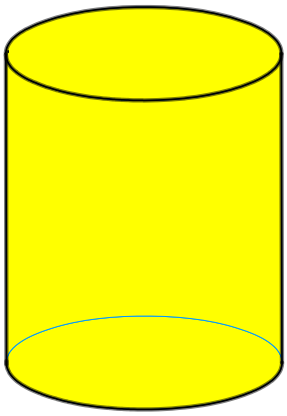
- circle - top
- circle - bottom
- rectangle - tube

Watch the cylinder be made...



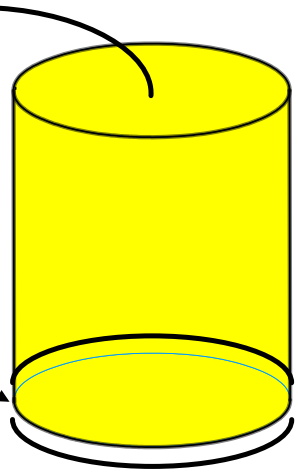






To find the Surface Area of a Cylinder,
use this formula

B = area of base
h = height
p = perimeter
SA = surface area



$$SA = ph + 2B$$

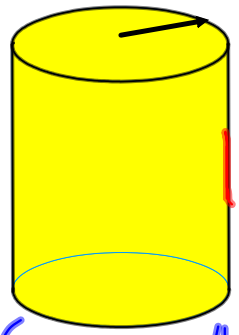
$$A = 2 \cdot \pi \cdot r \cdot h + 2\pi \cdot r^2$$

So let's practice...

Find the surface area of these cylinders.

$A = 2 \cdot \pi \cdot r \cdot h + 2\pi \cdot r^2$

r = 8

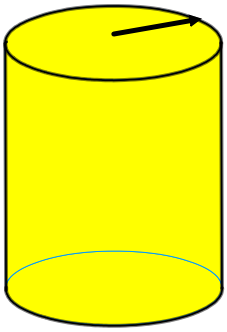


$A = 2 \cdot \pi \cdot 8 \cdot 10 + 2 \cdot \pi \cdot 8^2$

$A = 904.32$

(π button $\rightarrow A = 904.778684$)

r = 4



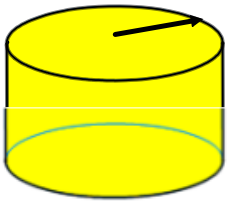
$A = 2 \cdot \pi \cdot r \cdot h + 2\pi \cdot r^2$

$A = 2 \cdot \pi \cdot 4 \cdot 6 + 2 \cdot \pi \cdot 4^2$

$A = 251.2$

(π button $= 251.327412$)

r = 5



$A = 2 \cdot \pi \cdot r \cdot h + 2 \cdot \pi \cdot r^2$

$A = 2 \cdot \pi \cdot 5 \cdot 2 + 2 \cdot \pi \cdot 5^2$

$A = 219.8$

Homework:
Cylinder Surface Area worksheet