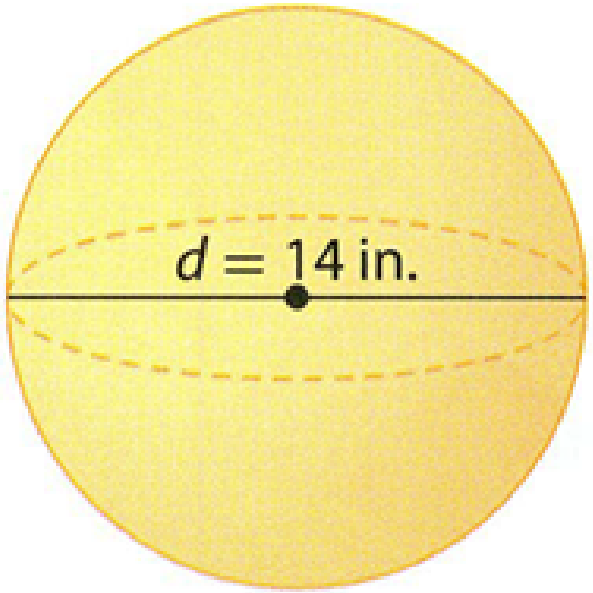
b)



$$SA_{Rectangular\,Prism} = 2lw + 2lh + 2wh$$

$$SA_{Triangular\,Prism} = lw + 2ls + wh$$

$$SA_{SquarePyramid} = l^2 + 2ls$$

$$SA_{Cylinder} = 2\pi r^2 + \pi dh$$

$$SA_{Cone} = \pi r^2 + \pi rs$$

$$SA_{Sphere} = 4\pi r^2$$

$l = length$

$w = width$

$h = height$

$s = slantheight$

$d = diameter$

$r = radius$

Remember....

In math we need to work in logical order. The work is MUCH more important than the final answer. In surface area questions, you should always follow the same steps we've been doing in class:

1) Draw/Label diagram (with variables and numbers)

2) Choose appropriate formula, then cross out any parts you don't need

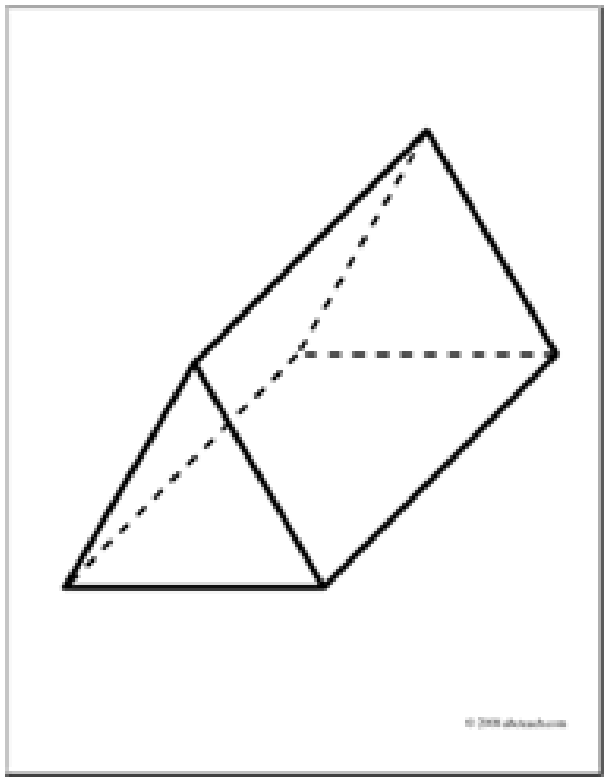
3) Find missing variables (i.e. find slant height, radius, etc)

4) Fill in equation...**make sure everything is in the same units!!**

5) Solve the equation, showing your work.

REMEMBER: You should keep 4 decimals in your work, and 2 decimals in your final answer, unless the question says otherwise!

Example 1. A triangular prism is 8 cm wide, 7 cm high, and 5 cm long. What is the surface area?



Example 2. A cylinder has a diameter of 3 feet, and a height of 10 inches. What is the surface area of the cylinder?

7. John calculated the surface area of the paper cup using the formula for the surface area of a cone. Explain the error in his solution.

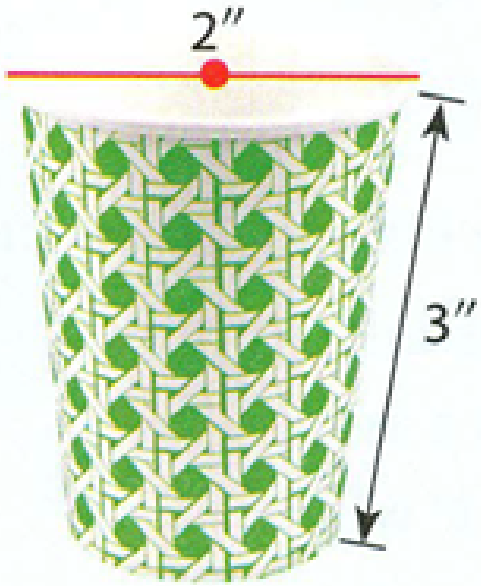
$SA = \pi r^2 + \pi rs$

$= \pi + 3\pi$

$= 4\pi$

$= 12.5663...$

You need about $12\frac{1}{2}$ in.^{2} of paper to make the cup.



An NBA basketball has a diameter of about 238 mm. What is the surface area of the leather surface of an NBA basketball? Express your answer to the nearest tenth of a square centimetre.

Homework:
Page:

Finish surface area assignment!!