# Measurement And Geometry Word Problems

Grade 11 College Math Name: _____

Solve the following questions. Remember to include a therefore statement when solving word problems! Also, be sure to show all work – including formulas and units!

1. Suppose a water tank in the shape of a cylinder is 30m long, and 8m in diameter. How much sheet metal was used in its construction?


$r = \frac{8}{2} = 4$

$h = 30$

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

$SA = 2\pi(4^2) + 2\pi(4)(30)$

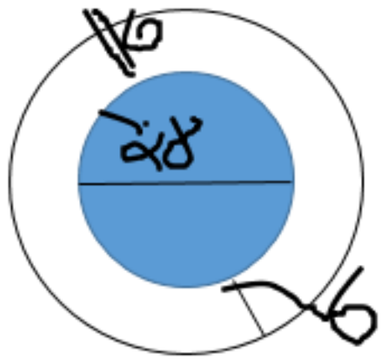
$SA = \frac{100.53}{2} + 753.98$

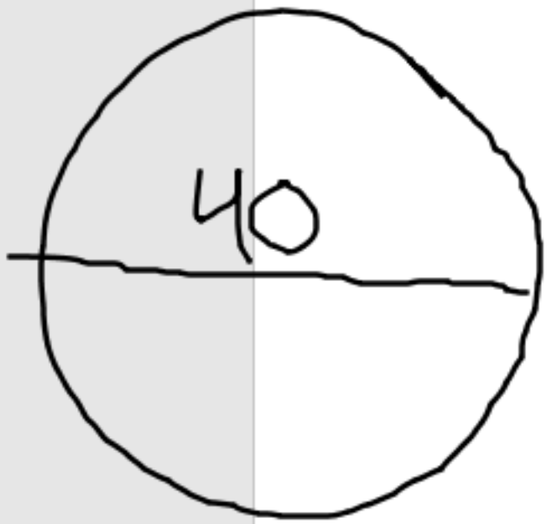
$SA = 50.27 + 753.48$

$SA = 804.25 \text{ m}^2$

$SA = 804.3 \text{ m}^2$

2. A circular swimming pool has a diameter of 28 m. It has a uniform deck build all around it. If the width of the deck is 6m, what is the total space that the pool and the deck are taking up on the lawn?




$A = \pi r^2$

$r = \frac{40}{2} = 20$

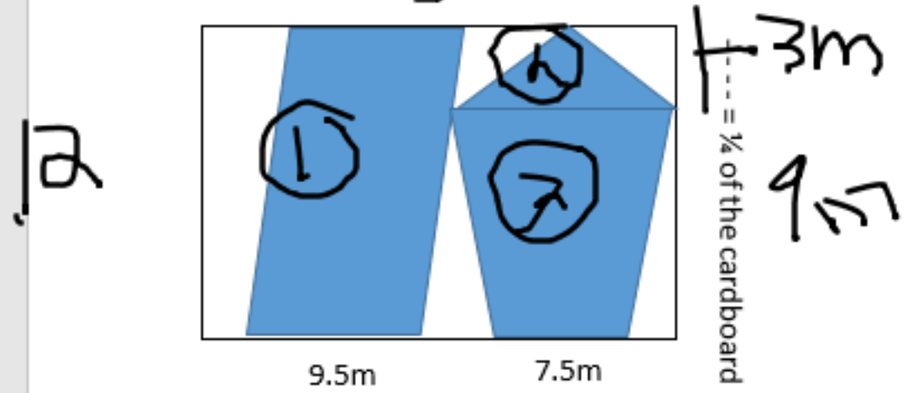
$A = \pi(20^2)$

$A = 1256.6m^2$

. The area of the pool and deck is $1256.6m^2$.

3. A roll of wrapping paper is 1.5 meters wide and 20 meters long. How many square meters of wrapping paper are on the roll?

5. A prop for the next school play, 'The House On The Hill' is cut from a rectangular sheet of cardboard that measures 12m by 25m. The shape is shown in the diagram to the left. What is the total area of the school prop?




① $A = bh$

② $A = \frac{bh}{2}$

$= \frac{(12.5)(3)}{2}$

③ $A = \frac{(a+b)h}{2}$

$= \frac{(12.5+7.5)\,9}{2}$