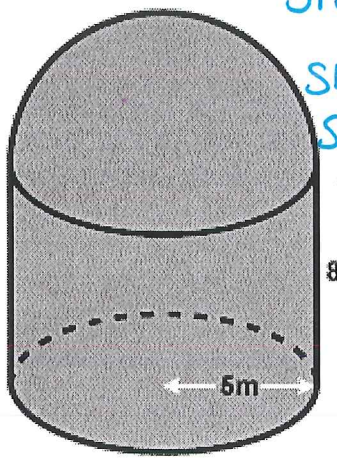
Name: Key

Putting it All Together! Day 2 Warm-Up

Directions: If it is not indicated, round to the nearest tenth.
Find the surface area and volume of the composite figure. Show all work and label answers.



SA = $\frac{1}{2}$ Sphere + Cylinder w/o 1 circle base

SA = $\frac{1}{2} 4\pi r^2 + 2\pi rH + \pi r^2$

SA $\frac{1}{2} 4\pi 5^2 + 2\pi 5 \cdot 8 + \pi 5^2$

SA $\approx 486.9 m^2$

Surface Area 486.9 m^2

$B \cdot H = \pi r^2 \cdot H$

$V = \frac{1}{2}$ sphere + cylinder

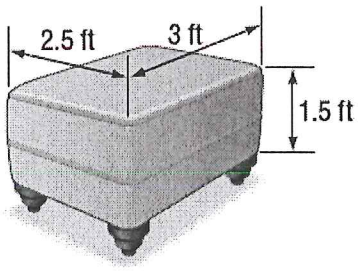
$V = \frac{1}{2} \cdot \frac{4}{3} \pi r^3 + \pi r^2 \cdot H$

$V = \frac{1}{2} \cdot \frac{4}{3} \pi 5^3 + \pi 5^2 \cdot 8$

$V \approx 890.1 m^3$

Volume 890.1 m^3

2. **FURNITURE** Nicolás wants to have an ottoman reupholstered. Find the surface area that will be reupholstered.



We are NOT going to cover the Bottom!

TOP: 2.5×3
$+ 2(3 \times 1.5)$
$+ 2(2.5 \times 1.5)$

SA to be covered w/ upholstry:
24 ft^2

3. The tent is made of a material that costs $5.22 per square foot. The material for the triangular faces and the two exposed sides is different than that of the material of the bottom of the tent. Find the cost of material needed for just the exposed part of the tent.

2△ + 2□

SA = $2 \frac{1}{2} b \cdot h + 2 b \cdot h$

SA = $2 \frac{1}{2} 50 \cdot 40 + 2 \cdot 80 \cdot 50$

SA = 10000 in^2 ← in squared!

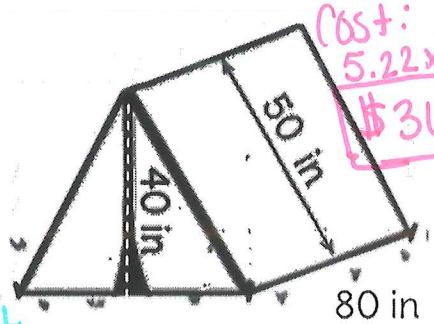
1 ft = 12 in | 144 in^2

1 ft = 12 in

Convert to sq. ft

$\frac{10,000}{144} = 69.4 ft^2$

SA = 69.4 ft^2



Cost:
5.22×69.4
$362.27