ANSWERS to Surface Area of Composite Solids

1. 1362π mm^2

Method: Add the surface areas of both cylinders and REMOVE the two "patches" of circles where they are attached or $2\pi(6)^2$ – This is the same as adding the lateral area of the small cylinder and the total surface area of the large cylinder.

2. 1491 cm^2

Hint: Find the missing height of the trapezoid by subtraction (22 cm – 8 cm)

You should add the area of the 2 trapezoids $\left(A = \frac{(B+b)}{2} \cdot h\right)$, the 7 rectangular sides and the bottom.

3. 696.8 mm^2

You should add the area of the 4 triangular sides, the 4 rectangular sides and the bottom.

4. 1051.2 ft^2

Start with the triangular prism – add the area of the two triangles and the two rectangular sides, then the rectangular prism – add the area of the four rectangular sides and the base. Combine all of the areas.

5. $(12\pi + 150)$ cm^2

(if you use π button then Area = 187.70 cm^2, with 3.14 Area = 187.68 cm^2

This is half a cylinder – when it is cut, it forms an extra side which is a rectangle, so…

Take half the area of the cylinder and ADD the area of the rectangular base.