

A student designed this stand for a table lamp. How could the student determine the surface area of this stand? What would he need to know?


## Strategy?

$S A_{\text {cyl }}+S A_{\Delta r}-$ (cirlexz $)$

$$
S A_{\Delta \lambda}+\text { lateral sort }_{200}+2 \pi r h
$$

$$
+2 \pi r^{2}+2 \pi r h-2 \pi r^{2}
$$

$$
\begin{aligned}
& S A= \\
& S A, \square=3(15 \times 3)+\frac{2\left(15 \times k^{3}\right)}{\not 2}=
\end{aligned}
$$

30 cm

$$
\begin{array}{r}
135+195 \\
330 \mathrm{~cm}^{2}
\end{array}
$$

15 cm

$$
\begin{aligned}
& 135+195 \\
& 330 \mathrm{~cm}^{2}
\end{aligned} \quad \begin{aligned}
S A_{P 1}= & 2 \pi(2)(30) \\
= & 376.8 \\
330 & +376.8=706.8
\end{aligned}
$$

$$
736.9
$$

The base is an equilateral triangle

$$
\begin{aligned}
& h^{2}=15^{2}-7.5^{2} \\
& h=\sqrt{15^{2}-7.5^{2}} \\
& h=13
\end{aligned}
$$

