Surface Area of Prisms & Cylinders



Surface Area of Prisms



Rectangular Prism

Triangular Prism

Lateral S Formula: Total S Formula:

S = Ph

S= Surface Area P= Perimeter of Base h= Height of Figure

S = Ph + 2B

- S= Surface Area
- P= Perimeter of Base
- h= Height of Figure
- B= Area of the Base





Lateral S Formula:

S = Ph



Total S Formula: S = Ph + 2B

Identify the base. P= B= A=bh h=

Lateral S Formula: S = Ph S = (5+5+4+4)7 $S = 126 \ units^2$



Total S Formula: S = Ph + 2B S = (5+5+4+4)7 + 2(4.5) $S = 166 \ units^{2}$

Lateral S Formula: S = Ph

Total S Formula: S = Ph + 2B



Identify the base. P= $B=A=\frac{1}{2}bh$ h=

Lateral S Formula: S = Ph S = (8 + 8 + 8)12 $S = 288 \ cm^2$



Total S Formula: S = Ph + 2B $S = (8 + 8 + 8)12 + 2(\frac{1}{2} \cdot 8 \cdot 3)$ $S = 312 \ cm^2$





Parts of a cylinder

- A cylinder has 2 main parts:
- *A rectangle
- *A circle actually 2
- Together they make a cylinder.





Lateral S Formula: $S = 2\pi rh$



Total S Formula: $S = 2\pi rh + 2\pi r^2$

Lateral S Formula: $S = 2\pi rh$ S = 2(3.14)(3.5)(11.5) $S = 252.77 \ cm^2$



Total S Formula:

$$S = 2\pi rh + 2\pi r^2$$

 $S = 2(3.14)(3.5)(11.5) + 2(3.14)(3.5)^2$

 $S = 329.7 \ cm^2$