MasterMath

Geometry

SURFACE AREA OF COMPOSITE SOLIDS

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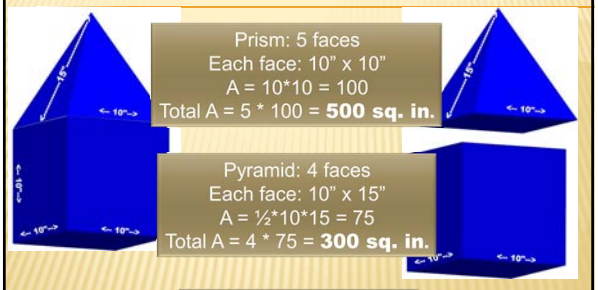

Prism: 5 faces
Each face: 10" x 10"
A = 10*10 = 100
Total A = 5 * 100 = **500 sq. in.**

Pyramid: 4 faces
Each face: 10" x 15"
A = ½*10*15 = 75
Total A = 4 * 75 = **300 sq. in.**

Total:
500 + 300 = **800 sq. in.**

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Find the surface area of the mail box

You Try It!

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Prism:
2 sides each 5" x 11" = 2 * 5 * 11 = 110
1 side 6' x 11' = 6 * 11 = 66
2 sides 5" x 6" = 2 * 5 * 6 = 60
Total = 110 + 66 + 60 = 236 sq. in.

Half Cylinder:
$\frac{1}{2} * (2\pi rh + 2\pi r^2)$
$= \frac{1}{2}(2*3.14*4*11 + 2*3.14*4^2)$
$= \frac{1}{2}(276.32 + 100.48)$
$= \frac{1}{2}(376.8) = 188.4$ sq. in.

Total:
236 + 188.4 = 424.4 sq. in.

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Prism:
2 sides 180 x 70 = 2 * 180 * 70 = 25,200 sq cm
2 sides 180 x 85 = 2 * 180 * 85 = 30,600 sq cm
1 side 85 x 70 = 85 * 70 = 5950 sq cm
Total = 25,200 + 30,600 + 5950 = 61,750 sq cm

Triangular Prism:
2 sides = 2 * ½ * 25 * 70 = 1750 sq cm
1 side = 85 * 25 = 2125 sq cm
1 side = 85 x 75 = 6375 sq cm
Total = 1750 + 2125 + 6,375 = 10,250 sq cm

Total: 61,750 + 10,250 = 72,000 sq cm

You Try It

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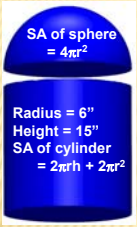

You Try It

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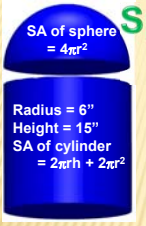

Sphere: ½*4*3.14*6²
= 226.08 sq. in.

Cylinder:
2*3.14*6*15
+ ½*2*3.14*6²
= 678.24

Total = 226.08 + 678.24
= 904.32 sq. in.

You Try It