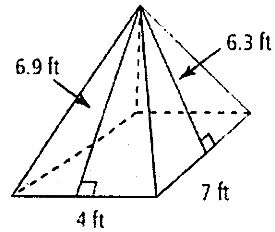
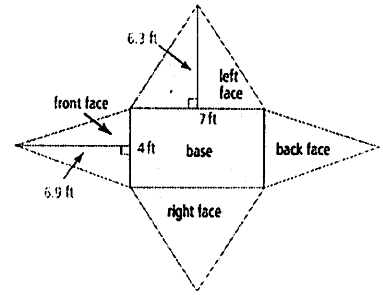
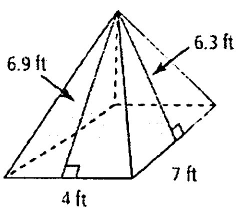
Lesson 14-4: Surface Areas of Pyramids

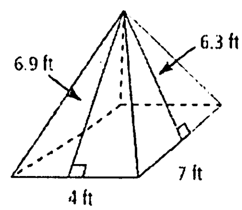
Got It?

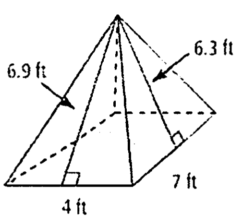
Find the surface area of the rectangular pyramid to the nearest square foot.

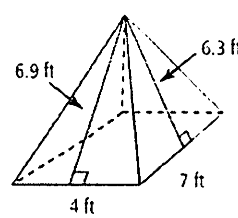


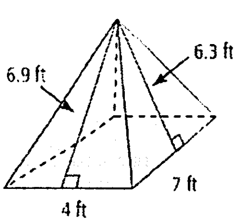






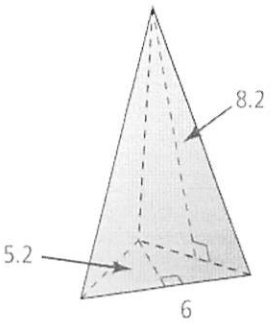


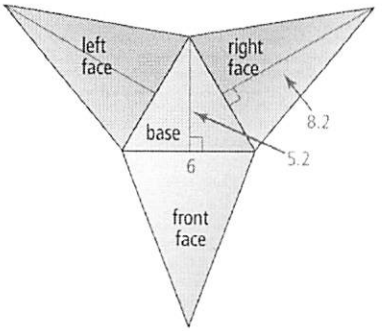


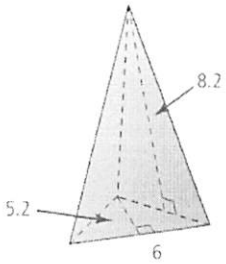


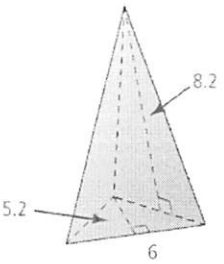
Example

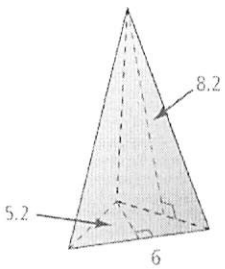
Find the surface area of the regular triangular pyramid to the nearest square unit.

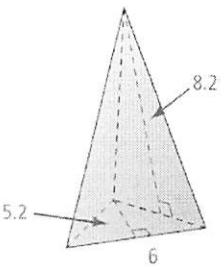






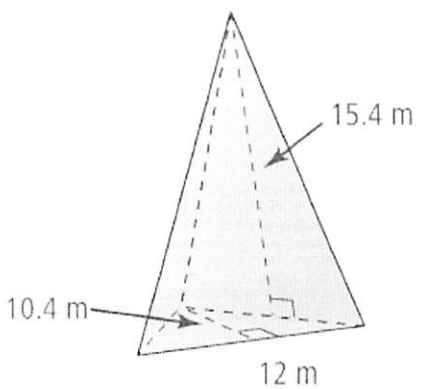






Got It?

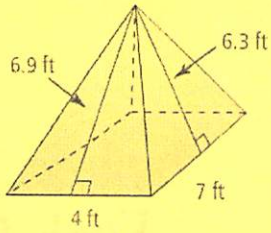
Find the surface area of the regular triangular pyramid to the nearest square meter.

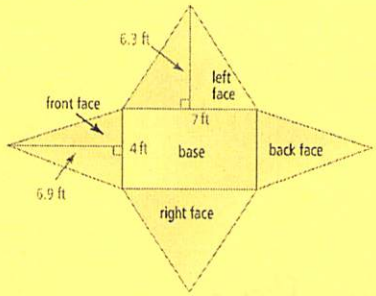


Lesson 14-4: Surface Areas of Pyramids

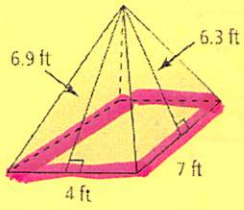
Got It?

Find the surface area of the rectangular pyramid to the nearest square foot.





Bottom Face

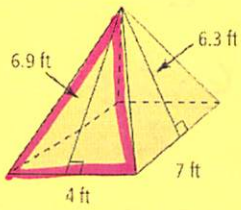


$A = b \cdot h$

$A = 4 \cdot 7$

$A = 28 \text{ ft}^2$

Front Face

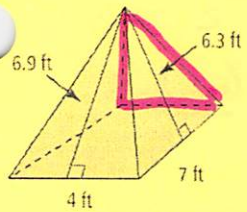


$A = \frac{b \cdot h}{2}$

$A = \frac{4 \cdot 6.9}{2}$

$A = 13.8 \text{ ft}^2$

Back Face

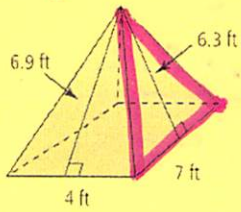


$A = \frac{b \cdot h}{2}$

$A = \frac{4 \cdot 6.9}{2}$

$A = 13.8 \text{ ft}^2$

Right Face

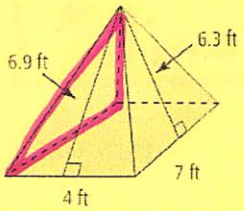


$A = \frac{b \cdot h}{2}$

$A = \frac{7 \cdot 6.3}{2}$

$A = 22.05 \text{ ft}^2$

Left Face



$A = \frac{b \cdot h}{2}$

$A = \frac{7 \cdot 6.3}{2}$

$A = 22.05 \text{ ft}^2$

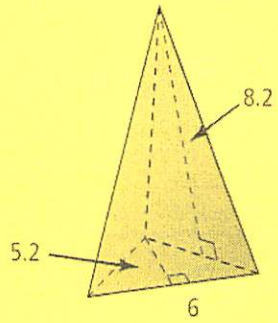
Total Surface Area

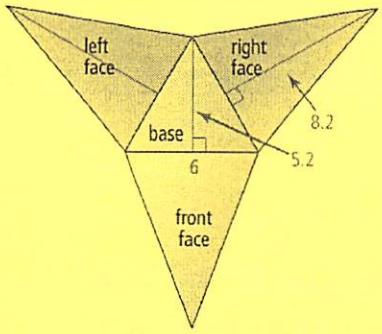
99.7 ft^2

100 ft^2

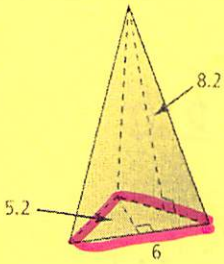
Example

Find the surface area of the regular triangular pyramid to the nearest square unit.





Bottom Base

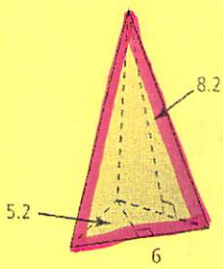


$A = \frac{b \cdot h}{2}$

$A = \frac{6 \cdot 5.2}{2}$

$A = 15.6 \text{ units}^2$

Front Face

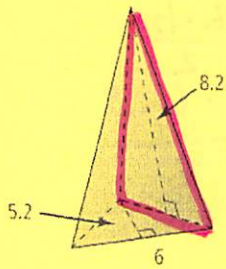


$A = \frac{b \cdot h}{2}$

$A = \frac{6 \cdot 8.2}{2}$

$A = 24.6 \text{ units}^2$

Right Face

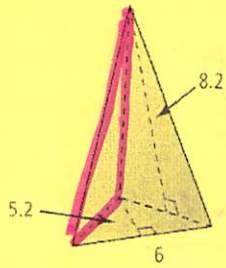


$A = \frac{b \cdot h}{2}$

$A = \frac{6 \cdot 8.2}{2}$

$A = 24.6 \text{ units}^2$

Left Face



$A = \frac{b \cdot h}{2}$

$A = \frac{6 \cdot 8.2}{2}$

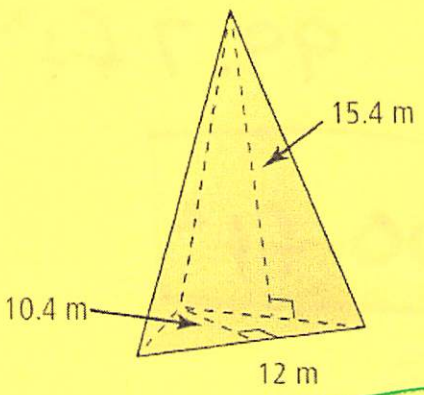
$A = 24.6 \text{ units}^2$

Total Surface Area = 89.4 units²

89 units²

Got It?

Find the surface area of the regular triangular pyramid to the nearest square meter.



Bottom Base Δ

$A = \frac{b \cdot h}{2}$ $A = \frac{12 \cdot 10.4}{2}$ $A = 62.4 \text{ m}^2$

Lateral Faces Δ x3

$A = \frac{b \cdot h}{2}$ $A = \frac{12 \cdot 15.4}{2}$ $A = 92.4 \text{ m}^2$

$\times 3 = 227.2 \text{ m}^2$

Total Surface Area = 339.6 m²