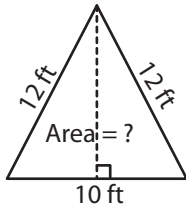


Area of an Isosceles Triangle

T1S1

Example:



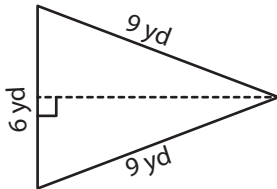
In an isosceles triangle, altitude drawn to the base is a median.
Median divides base into equal line segments.

$$\begin{aligned} \text{height} &= \sqrt{12^2 - 5^2} \\ &= \sqrt{144 - 25} \\ &= \sqrt{119} \text{ ft} \end{aligned}$$

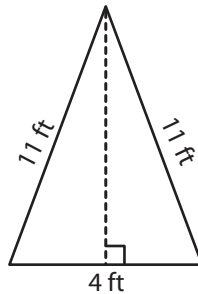
$$\begin{aligned} b &= 10 \text{ ft}, h = \sqrt{119} \text{ ft} \\ \text{Area} &= \frac{1}{2} \times b \times h \\ &= \frac{1}{2} \times 10 \times \sqrt{119} \\ &= 54.54 \text{ ft}^2 \end{aligned}$$

Find the area of each isosceles triangle. Round your answer to two decimal places.

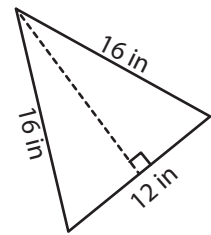
1)

Area =

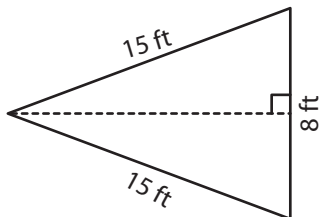
2)

Area =

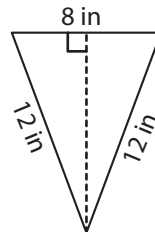
3)

Area =

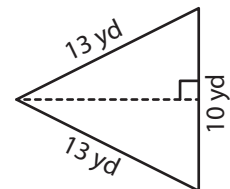
4)

Area =

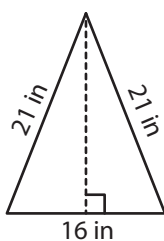
5)

Area =

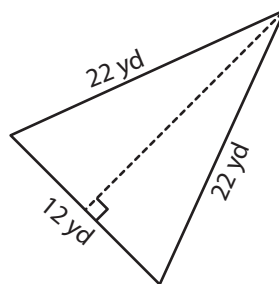
6)

Area =

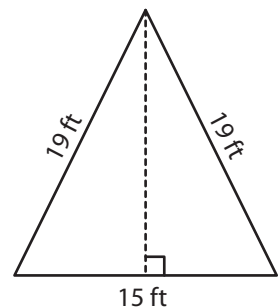
7)

Area =

8)

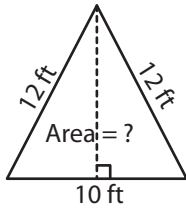
Area =

9)

Area =

Area of an Isosceles Triangle

Example:



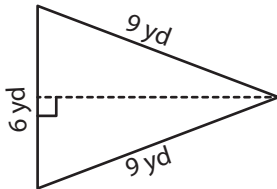
In an isosceles triangle, altitude drawn to the base is a median.
Median divides base into equal line segments.

$$\begin{aligned} \text{height} &= \sqrt{12^2 - 5^2} \\ &= \sqrt{144 - 25} \\ &= \sqrt{119} \text{ ft} \end{aligned}$$

$$\begin{aligned} b &= 10 \text{ ft}, h = \sqrt{119} \text{ ft} \\ \text{Area} &= \frac{1}{2} \times b \times h \\ &= \frac{1}{2} \times 10 \times \sqrt{119} \\ &= \mathbf{54.54 \text{ ft}^2} \end{aligned}$$

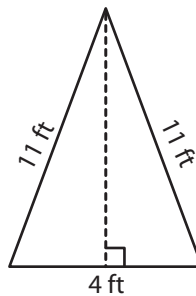
Find the area of each isosceles triangle. Round your answer to two decimal places.

1)



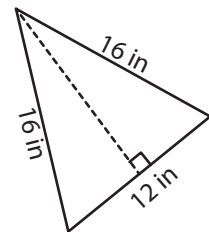
Area = **25.46 yd²**

2)



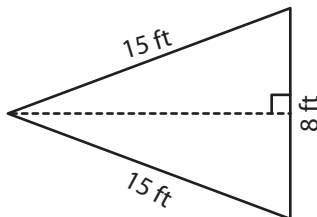
Area = **21.63 ft²**

3)



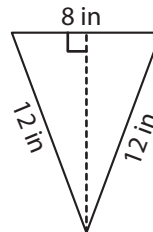
Area = **88.99 in²**

4)



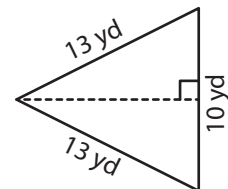
Area = **57.83 ft²**

5)



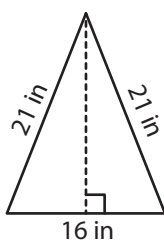
Area = **45.25 in²**

6)



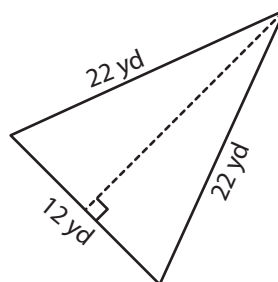
Area = **60 yd²**

7)



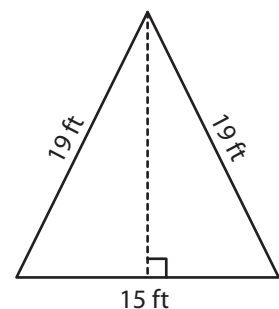
Area = **155.33 in²**

8)



Area = **127 yd²**

9)



Area = **130.93 ft²**