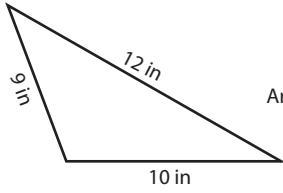


Name : _____

Scalene Triangle - Finding Area

Sheet 1

Example:

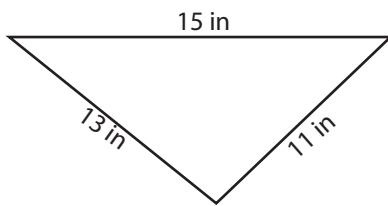


$$\begin{aligned} \text{Area of scalene triangle} &= \sqrt{s(s-a)(s-b)(s-c)} \\ s &= \text{half of the perimeter} \\ s &= \frac{a+b+c}{2} \\ s &= \frac{10 \text{ in} + 12 \text{ in} + 9 \text{ in}}{2} \\ s &= \frac{31 \text{ in}}{2} \\ s &= 15.5 \text{ in} \end{aligned}$$

$$\begin{aligned} \text{Area of scalene triangle} &= \sqrt{s(s-a)(s-b)(s-c)} \\ &= \sqrt{15.5(15.5-10)(15.5-12)(15.5-9)} \\ &= \sqrt{15.5(5.5)(3.5)(6.5)} \\ &= \sqrt{1939.4375} \\ &= 44.04 \text{ in}^2 \end{aligned}$$

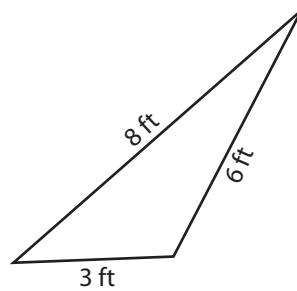
Find the area of each scalene triangle. Round the answer to two decimal places.

1)



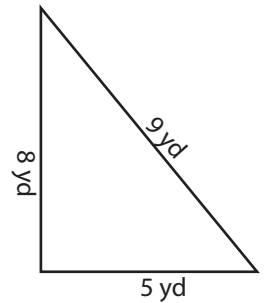
Area = _____

2)



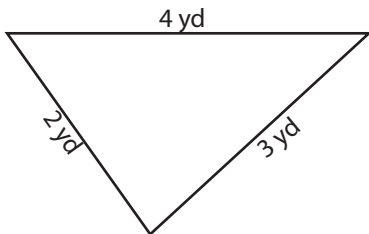
Area = _____

3)



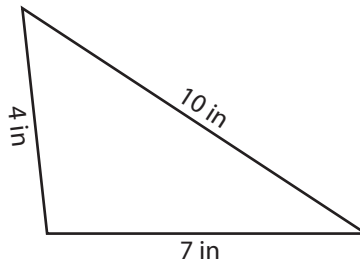
Area = _____

4)



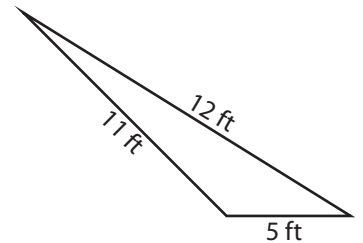
Area = _____

5)



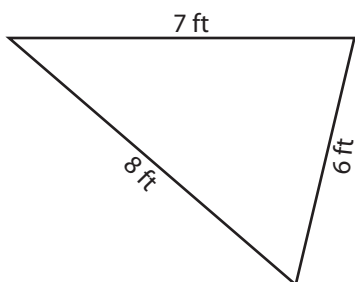
Area = _____

6)



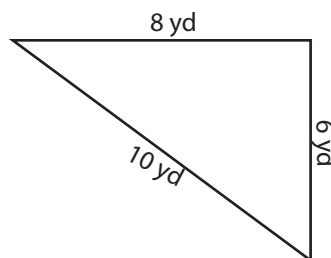
Area = _____

7)



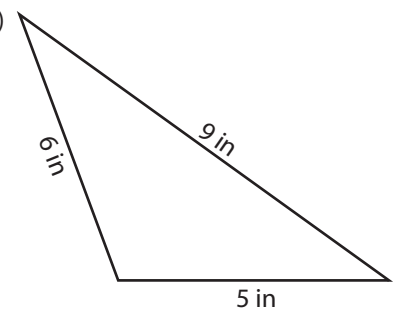
Area = _____

8)



Area = _____

9)



Area = _____

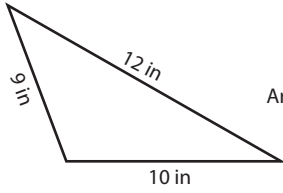
Name : _____

Answer key

Scalene Triangle - Finding Area

Sheet 1

Example:



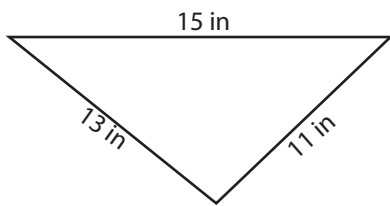
Area = ?

$$\begin{aligned} \text{Area of scalene triangle} &= \sqrt{s(s-a)(s-b)(s-c)} \\ s &= \text{half of the perimeter} \\ s &= \frac{a+b+c}{2} \\ s &= \frac{10 \text{ in} + 12 \text{ in} + 9 \text{ in}}{2} \\ s &= \frac{31 \text{ in}}{2} \\ s &= 15.5 \text{ in} \end{aligned}$$

$$\begin{aligned} \text{Area of scalene triangle} &= \sqrt{s(s-a)(s-b)(s-c)} \\ &= \sqrt{15.5(15.5-10)(15.5-12)(15.5-9)} \\ &= \sqrt{15.5(5.5)(3.5)(6.5)} \\ &= \sqrt{1939.4375} \\ &= 44.04 \text{ in}^2 \end{aligned}$$

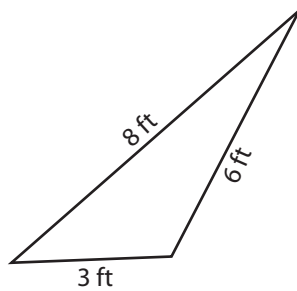
Find the area of each scalene triangle. Round the answer to two decimal places.

1)



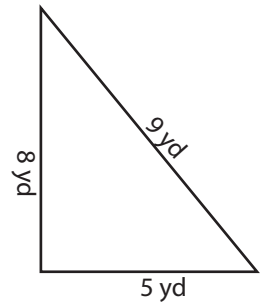
Area = 69.63 in²

2)



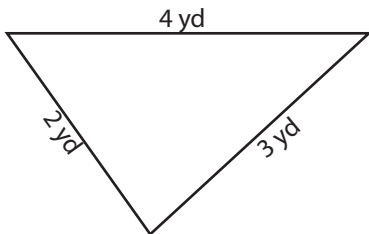
Area = 7.64 ft²

3)



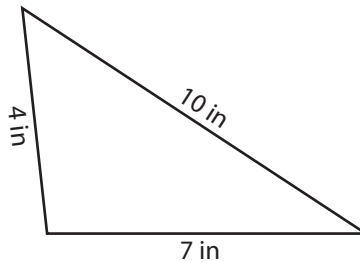
Area = 19.9 yd²

4)



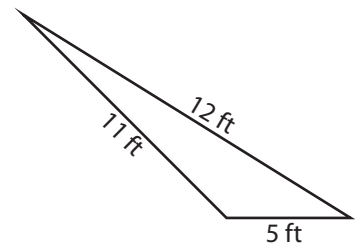
Area = 2.9 yd²

5)



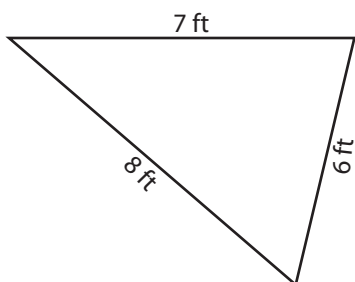
Area = 10.93 in²

6)



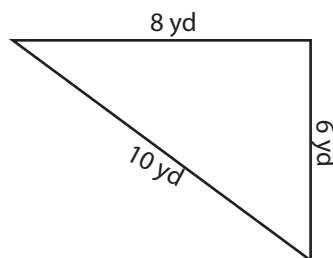
Area = 27.5 ft²

7)



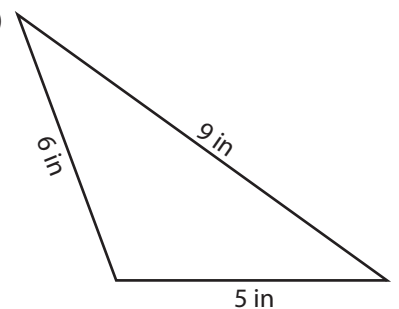
Area = 20.33 ft²

8)



Area = 24 yd²

9)



Area = 14.14 in²