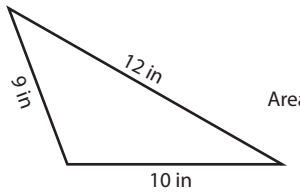
Name : _____ Score : _____

Scalene Triangle - Finding Area

Sheet 1

Example:



Area = ?

Area of scalene triangle = $\sqrt{s\,(s-a)\,(s-b)\,(s-c)}$

s = half of the perimeter

$s = \frac{a+b+c}{2}$

$s = \frac{10\text{ in} + 12\text{ in} + 9\text{ in}}{2}$

$s = \frac{31\text{ in}}{2}$

$s = \mathbf{15.5\text{ in}}$

Area of scalene triangle = $\sqrt{s\,(s-a)\,(s-b)\,(s-c)}$

$= \sqrt{15.5\,(15.5 - 10)\,(15.5 - 12)\,(15.5 - 9)}$

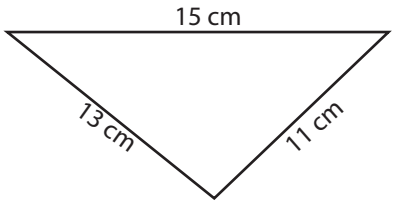
$= \sqrt{15.5\,(5.5)\,(3.5)\,(6.5)}$

$= \sqrt{1939.4375}$

$= \mathbf{44.04\text{ in}^2}$

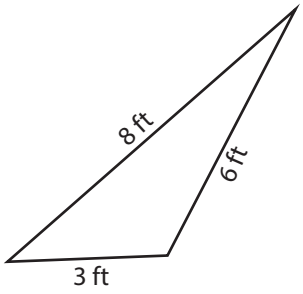
Find the area of each scalene triangle. Round the answer to two decimal places.

1)



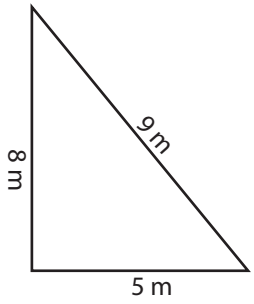
Area = _____

2)



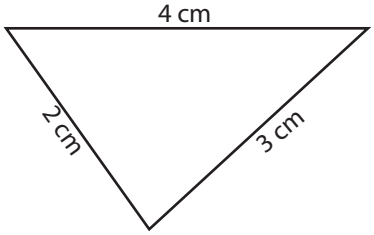
Area = _____

3)



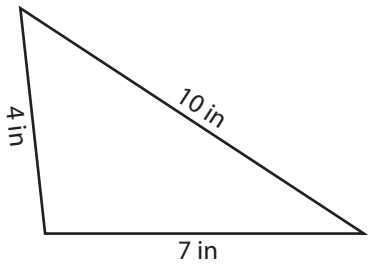
Area = _____

4)



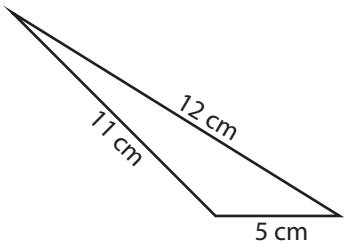
Area = _____

5)



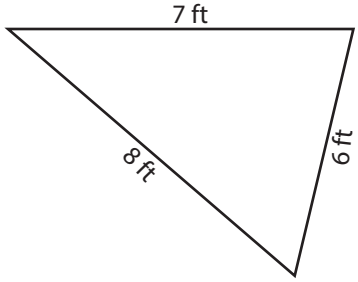
Area = _____

6)



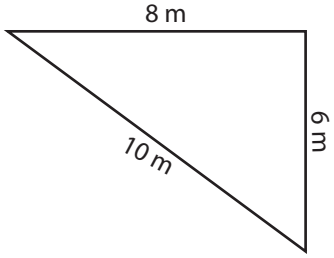
Area = _____

7)



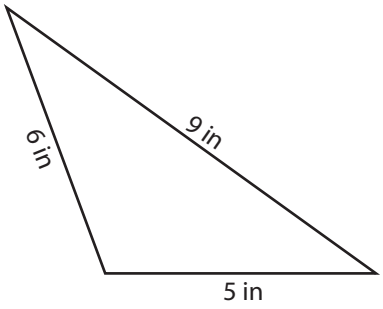
Area = _____

8)



Area = _____

9)



Area = _____

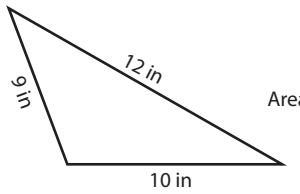
Name : _____ Score : _____

Answer key

Scalene Triangle - Finding Area

Sheet 1

Example:



Area = ?

Area of scalene triangle = $\sqrt{s\,(s-a)\,(s-b)\,(s-c)}$

s = 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 in**

Area of scalene triangle = $\sqrt{s\,(s-a)\,(s-b)\,(s-c)}$

$= \sqrt{15.5\,(15.5 - 10)\,(15.5 - 12)\,(15.5 - 9)}$

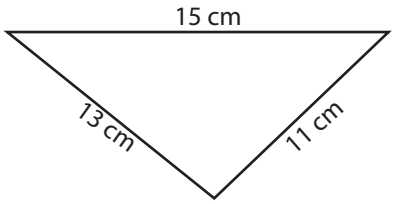
$= \sqrt{15.5\,(5.5)\,(3.5)\,(6.5)}$

$= \sqrt{1939.4375}$

= **44.04 in²**

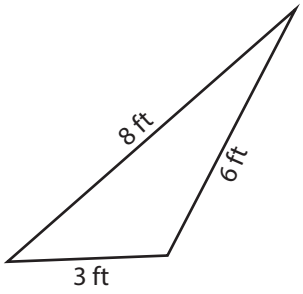
Find the area of each scalene triangle. Round the answer to two decimal places.

1)



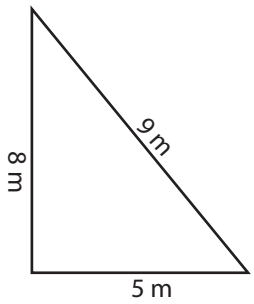
Area = **69.63 cm²**

2)



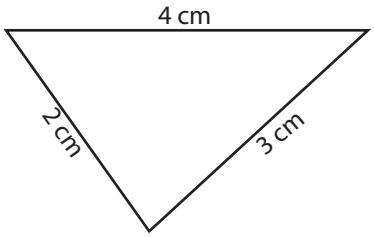
Area = **7.64 ft²**

3)



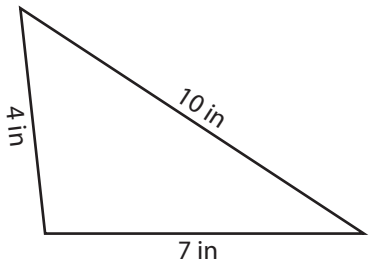
Area = **19.90 m²**

4)



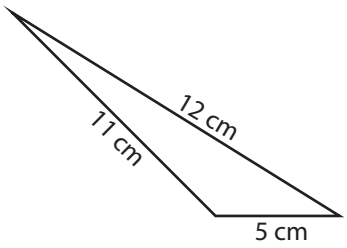
Area = **2.90 cm²**

5)



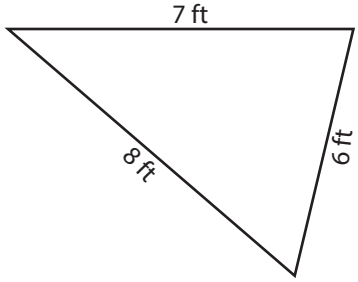
Area = **10.93 in²**

6)



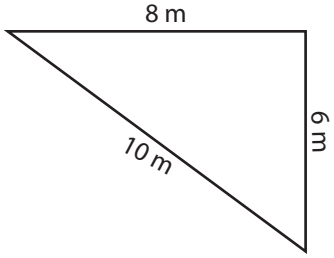
Area = **27.50 cm²**

7)



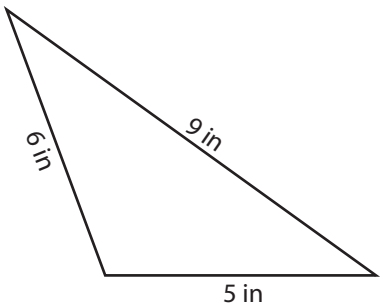
Area = **20.33 ft²**

8)



Area = **24 m²**

9)



Area = **14.14 in²**