AREA OF ISOSCELES TRIANGLE

Example : Find the area of the triangle and round it to two decimal places.

5.5 yd   5.5 yd

2.5 yd

$$\text{Height}(h) = \sqrt{a^2 - \frac{b^2}{4}}$$

a = 5.5 yd, b = 2.5 yd

$$h = \sqrt{5.5^2 - \frac{2.5^2}{4}} = \sqrt{30.25 - \frac{6.25}{4}}$$

$$= \sqrt{30.25 - 1.56} = \sqrt{28.69} = \textbf{5.36 yd}$$

$$\text{Area} = \frac{1}{2} \times b \times h$$

$$= \frac{1}{2} \times 2.5 \times 5.36$$

$$= \textbf{6.7 ft}^2$$

Find the area of the triangle and round it to two decimal places.

1)

4.5 ft   4.5 ft

7.2 ft

Area = ⬭

2)

6.9 in   6.9 in

3.1 in

Area = ⬭

3)

6.6 yd   6.6 yd

5.8 yd

Area = ⬭

4)

7.8 ft   7.8 ft

9.4 ft

Area = ⬭

5)

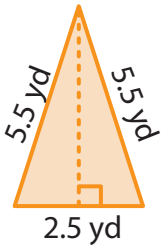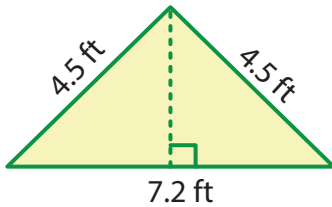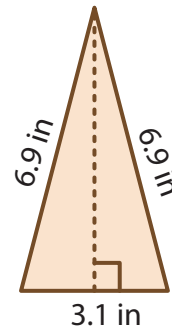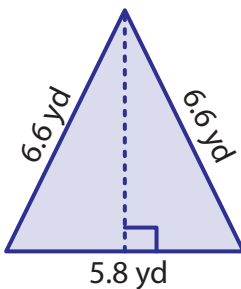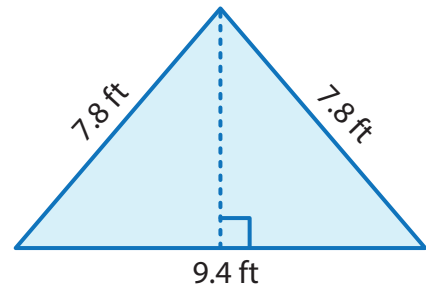9.7 in   9.7 in

11.6 in

Area = ⬭

6)

5.6 yd   5.6 yd

4.3 yd
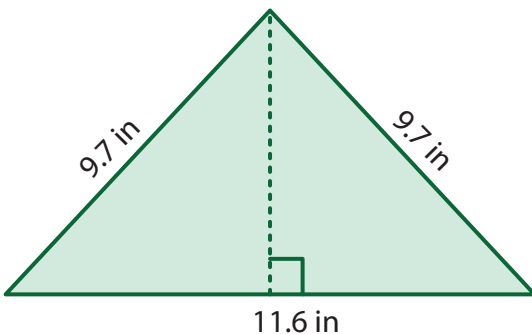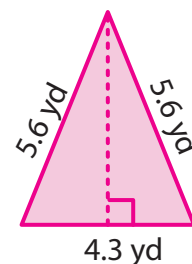
Area = ⬭

AREA OF ISOSCELES TRIANGLE
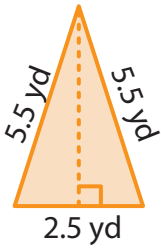
Answer key

Example : Find the area of the triangle and round it to two decimal places.

$$\text{Height(h)} = \sqrt{a^2 - \frac{b^2}{4}}$$

a = 5.5 yd, b = 2.5 yd

$$h = \sqrt{5.5^2 - \frac{2.5^2}{4}} = \sqrt{30.25 - \frac{6.25}{4}}$$

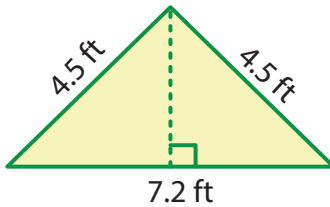$$= \sqrt{30.25 - 1.56} = \sqrt{28.69} = \textbf{5.36 yd}$$

$$\text{Area} = \frac{1}{2} \times b \times h$$

$$= \frac{1}{2} \times 2.5 \times 5.36$$
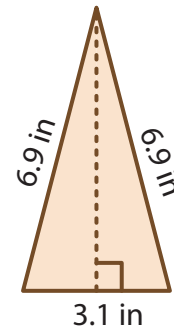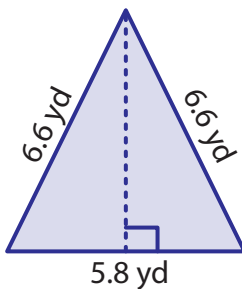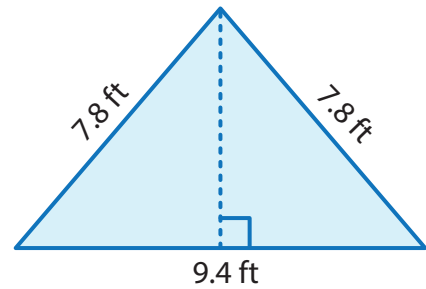
$$= \textbf{6.7 ft}^2$$

5.5 yd, *5.5 yd*, 2.5 yd

Find the area of the triangle and round it to two decimal places.

1)

4.5 ft 4.5 ft
7.2 ft

Area = **9.72 ft²**

2)

6.9 in 6.9 in
3.1 in

Area = **10.42 in²**

3)

6.6 yd 6.6 yd
5.8 yd

Area = **17.19 yd²**

4)

7.8 ft 7.8 ft
9.4 ft

Area = **29.26 ft²**

5)

9.7 in 9.7 in
11.6 in

Area = **45.12 in²**

6)

5.6 yd 5.6 yd
4.3 yd

Area = **11.12 yd²**