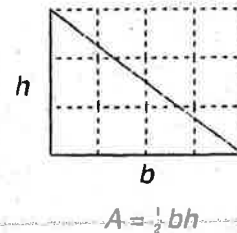


FINDING THE AREA OF A TRIANGLE

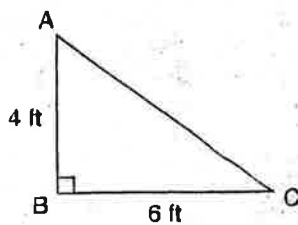
The area of a triangle is given by the formula $A = \frac{1}{2}bh$, where b stands for base and h stands for height.

The **base** is one side of the triangle. The **height** is the distance from the base to the vertex of the opposite angle. Only in a right triangle is the height one of the sides of the triangle.



To compute the area of a triangle, multiply $\frac{1}{2}$ by the base times the height.

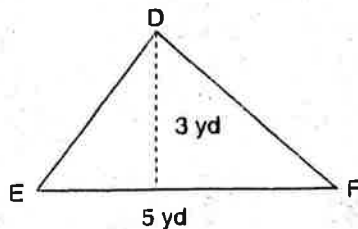
Example 1.



The height (4) is a side of right triangle ABC.

$$\begin{aligned} A &= \frac{1}{2}bh \\ &= \frac{1}{2} \times 6 \times 4 \\ &= 12 \text{ sq ft} \end{aligned}$$

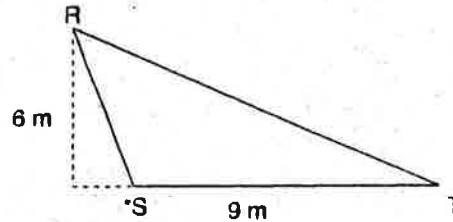
Example 2.



The height (3) is drawn as a dotted line within $\triangle DEF$.

$$\begin{aligned} A &= \frac{1}{2}bh \\ &= \frac{1}{2} \times 5 \times 3 \\ &= 7\frac{1}{2} \text{ sq yd} \end{aligned}$$

Example 3.

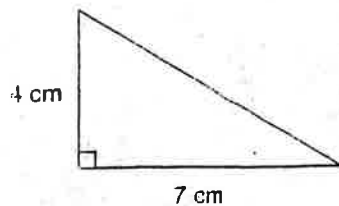


The height (6) is drawn as a dotted line outside of $\triangle RST$.

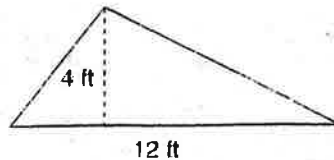
$$\begin{aligned} A &= \frac{1}{2}bh \\ &= \frac{1}{2} \times 9 \times 6 \\ &= 27 \text{ m}^2 \end{aligned}$$

➤ Find the area of each triangle.

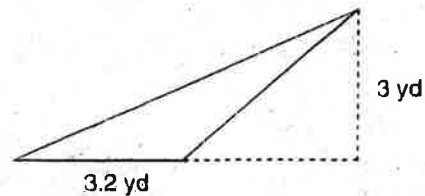
1. $A =$ _____



2. $A =$ _____



3. $A =$ _____



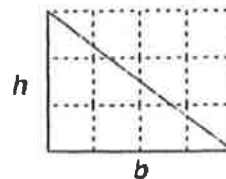
➤ Solve.

1. Na has a piece of cloth that is in the shape of a triangle, one angle of which is a right angle. How many square yards are in the piece of cloth if the base is 4 yards and the height is $2\frac{1}{2}$ yards?

5. A garden plot is in the shape of an equilateral triangle each side of which is 18 yards long. What is the approximate area of the garden if the shortest distance from one corner to the opposite side is about 15.6 yards?

FINDING THE AREA OF A TRIANGLE

The area of a triangle is given by the formula $A = \frac{1}{2}bh$, where b stands for base and h stands for height.

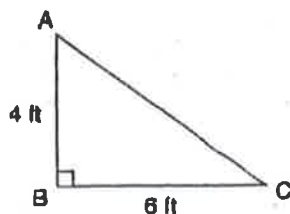


$$A = \frac{1}{2}bh$$

The **base** is one side of the triangle. The **height** is the distance from the base to the vertex of the opposite angle. Only in a right triangle is the height one of the sides of the triangle.

To compute the area of a triangle, multiply $\frac{1}{2}$ by the base times the height.

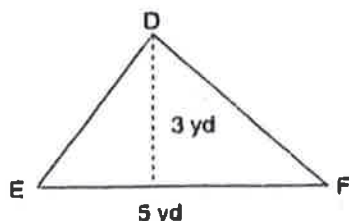
Example 1.



The height (4) is a side of right triangle ABC.

$$\begin{aligned} A &= \frac{1}{2}bh \\ &= \frac{1}{2} \times 6 \times 4 \\ &= 12 \text{ sq ft} \end{aligned}$$

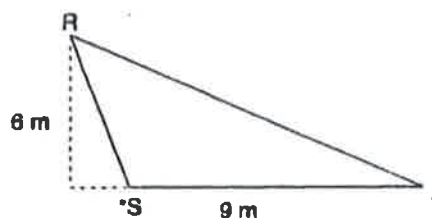
Example 2.



The height (3) is drawn as a dotted line within $\triangle DEF$.

$$\begin{aligned} A &= \frac{1}{2}bh \\ &= \frac{1}{2} \times 5 \times 3 \\ &= 7\frac{1}{2} \text{ sq yd} \end{aligned}$$

Example 3.

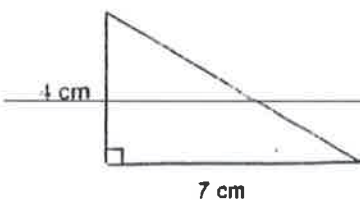


The height (6) is drawn as a dotted line outside of $\triangle RST$.

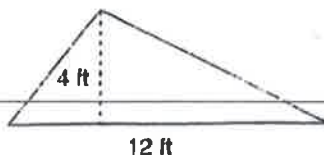
$$\begin{aligned} A &= \frac{1}{2}bh \\ &= \frac{1}{2} \times 9 \times 6 \\ &= 27 \text{ m}^2 \end{aligned}$$

➤ Find the area of each triangle.

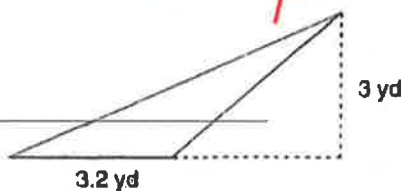
1. $A = 14 \text{ cm}^2$



2. $A = 24 \text{ ft}^2$



3. $A = 4.8 \text{ yd}^2$



➤ Solve.

1. Na has a piece of cloth that is in the shape of a triangle, one angle of which is a right angle. How many square yards are in the piece of cloth if the base is 4 yards and the height is $2\frac{1}{2}$ yards?

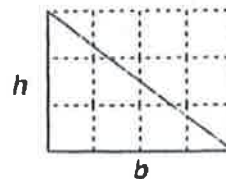
$$5 \text{ yd}^2$$

3. A garden plot is in the shape of an equilateral triangle each side of which is 18 yards long. What is the approximate area of the garden if the shortest distance from one corner to the opposite side is about 15.6 yards?

$$140.4 \text{ yd}^2$$

FINDING THE AREA OF A TRIANGLE

The area of a triangle is given by the formula $A = \frac{1}{2}bh$, where b stands for base and h stands for height.



$$A = \frac{1}{2}bh$$

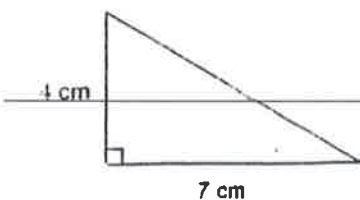
The **base** is one side of the triangle. The **height** is the distance from the base to the vertex of the opposite angle. Only in a right triangle is the height one of the sides of the triangle.

To compute the area of a triangle, multiply $\frac{1}{2}$ by the base times the height.

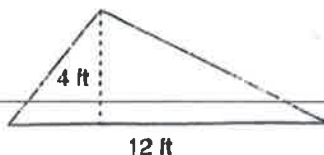
<p>Example 1.</p> <p>The height (4) is a side of right triangle ABC.</p> $A = \frac{1}{2}bh$ $= \frac{1}{2} \times 6 \times 4$ $= 12 \text{ sq ft}$	<p>Example 2.</p> <p>The height (3) is drawn as a dotted line within $\triangle DEF$.</p> $A = \frac{1}{2}bh$ $= \frac{1}{2} \times 5 \times 3$ $= 7\frac{1}{2} \text{ sq yd}$	<p>Example 3.</p> <p>The height (6) is drawn as a dotted line outside of $\triangle RST$.</p> $A = \frac{1}{2}bh$ $= \frac{1}{2} \times 9 \times 6$ $= 27 \text{ m}^2$
--	--	--

➤ Find the area of each triangle.

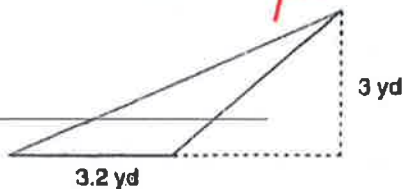
1. $A = 14 \text{ cm}^2$



2. $A = 24 \text{ ft}^2$



3. $A = 4.8 \text{ yd}^2$



➤ Solve.

1. Na has a piece of cloth that is in the shape of a triangle, one angle of which is a right angle. How many square yards are in the piece of cloth if the base is 4 yards and the height is $2\frac{1}{2}$ yards?

5 yd^2

3. A garden plot is in the shape of an equilateral triangle each side of which is 18 yards long. What is the approximate area of the garden if the shortest distance from one corner to the opposite side is about 15.6 yards?

140.4 yd^2