

$\text{Area} = \text{base} \times \text{height}$

height must be perpendicular to base

**Soh Cah Toa**

$\sin 60^\circ = \frac{x}{20}$

$20 \sin 60^\circ = 17.3$

Example

$15 \times 10\sqrt{3}$

$259.8 \text{ ft}^2$

Find area and perimeter  
70'

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$\text{Area} = \frac{1}{2}bh$

$\sqrt{16^2 + 30^2}$

$\sqrt{256 + 900}$

$\sqrt{1156} = 34$

$P = \frac{1}{2} \cdot (16 + 30)$

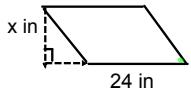
$A = \frac{1}{2} \cdot 16 \cdot 30$

$240 \text{ m}^2$

What is the perimeter and area?

Mar 31-7:21 AM

$\text{Area} = 144 \text{ inches squared}, \text{ find } x$



$A = bh$

$144 = 24x$

$x = 6$

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Find x

$\text{area} = 780 \text{ cm squared}$

$A = bh$

$780 = 60x$

$x = 13$

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$\text{Area} = 720 \text{ inches squared}$

Find x and perimeter

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

$720 = \frac{1}{2} \cdot 10 \cdot x$

$720 = 5x$

$x = 144$

$y = \sqrt{10^2 + 12^2}$

$y = \sqrt{100 + 144}$

$y = \sqrt{244}$

$y = 15.6$

$Z = \sqrt{10^2 + (12+14)^2}$

$Z = \sqrt{100 + 24^2}$

$Z = \sqrt{100 + 576}$

$Z = \sqrt{676}$

$Z = 26$

$P = 144 + 15.6 + 15.6 + 26$

$P = 315.9 \text{ in}$

Mar 31-7:27 AM

$9'$

$28'$

$\sin 45^\circ = \frac{h}{9}$

$h = 9 \sin 45^\circ$

$h = 9 \cdot \frac{\sqrt{2}}{2}$

$h = 4.5\sqrt{2}$

or

$h = 9 \cdot 0.707$

$h = 6.36$

$A = 28 \cdot 6.36 = 178.2 \text{ ft}^2$

$P = 9 + 9 + 28 + 28$

$P = 74'$

what is the area and perimeter?

Mar 31-9:01 AM

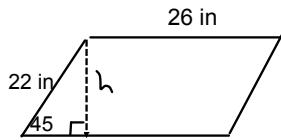
Find area and perimeter

$$h = \frac{22\sqrt{2}}{2} = 11\sqrt{2}$$

or

$$\sin 45 = \frac{x}{22}$$

$$22 \sin 45 = 15.56$$



$$A = 15.56 \times 26$$

$$404.5 \text{ in}^2$$

$$P = 26 + 22 + 26 + 22$$

$$P = 96 \text{ in}$$

Find area and perimeter:

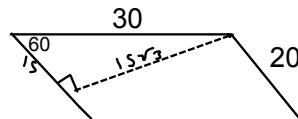
$$A = 15\sqrt{3} \cdot 20$$

$$A = 30 \sin 60 \cdot 20$$

$$A = 519.6$$

$$P = 30 + 20 + 30 + 20$$

$$P = 100$$



Mar 31-8:24 AM

Mar 31-8:28 AM

Mar 20-10:25 AM