## CALCULATE AREA

Square $A=a^{2}$, in which $a$ is one of the sides.

Rectangle
$A=a b$, in which $a$ is the base and $b$ is the length.

Parallelogram
$A=b h$, in which $b$ is the base and $h$ is the height

## Circle

$A=p r^{2}$, in which $p$ is 3.1416 and $r$ is the radius.

## Ellipse


$A=p r_{1} r_{2}$, in which $p$ is $3.1416, r_{1}$ is the longer radius, and $r_{2}$ is the shorter radius

## Trapezoid

$A=\left(h\left[b_{1}+b_{2}\right]\right) / 2$, in which $h$ is the height, $b_{1}$ is the longer parallel side, and $\boldsymbol{b}_{\mathbf{2}}$ is the shorter paralle I side


## Triangle

Given base and height: $A=(1 / 2) b h$, in which $b$ is the base and $h$ is the height

Given side, angle, side (SAS)(1/2) ab $x$ sin?, in which $a$ is one side, $b$ is another side, and ? is the known angle

Given three sides:
$\sqrt{(s[s-a][s-b][s-c])}$ when $s=(a$
 $+b+c) / 2$ (Heron's formula), in which $a, b$, and $c$ represent the three sides

