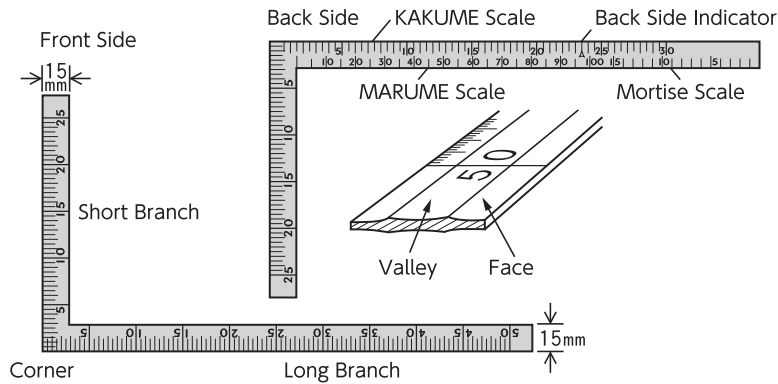


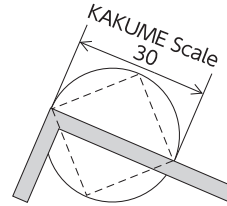
## Part Names



## About Special Scale

### KAKUME Scale

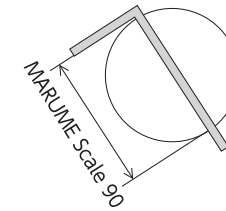
A scale graduated in  $\sqrt{2}$  times the actual length scale for measuring the largest square possible to be cut out from a circular material.



When the KAKUME Scale indicates 30 as the diameter of circular material, the largest possible size of a square to be cut out from it is 30 cm long.

### MARUME Scale

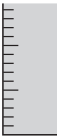
A scale graduated in  $1/\pi$  times the actual length scale for measuring the circumference of a circular material.



When the MARUME Scale indicates 90 as the diameter of circular material, the size of circumference is 90 cm long.

### Mortise Scale

Useful to measure the depth of a mortise.



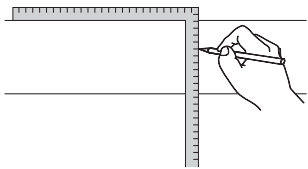
### Back Side Indicator

∇ means that there is an important graduation behind this mark.



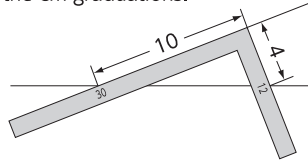
## How to Use a Carpenter's Square

### Mark a line at the square's right angle



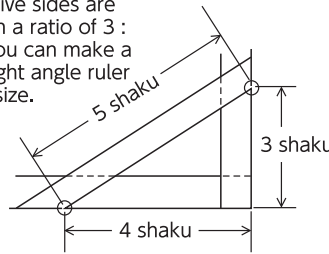
### Draw a Gradient Line

For example, the gradient formed by matching 10 on the horizontal side with 4 on the vertical side is called a 4-sun gradient. (Drawing a line with the carpenter's square for a 4-sun gradient is shown in the figure) If the ratio is 10 : 4, the same applies to the cm graduations.



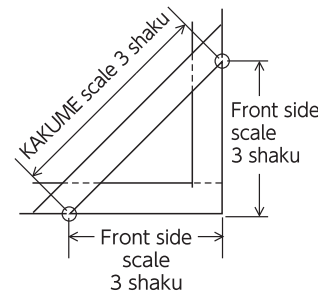
### How to Make a Large Square

① Using the Pythagorean theorem  
If the dimensions for the triangle's respective sides are made in a ratio of 3 : 4 : 5, you can make a large right angle ruler of any size.

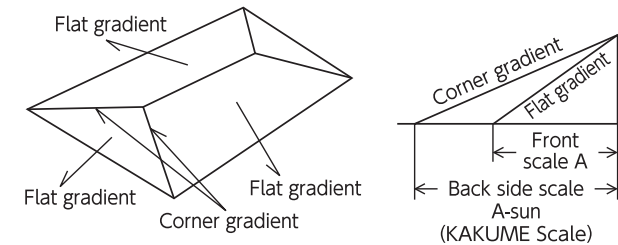


### How to make a large right angle ruler (large square)

② Using the KAKUME Scale

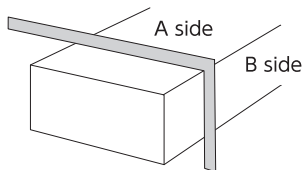


### Flat gradient and corner gradient



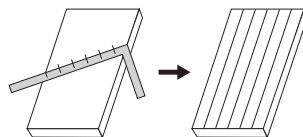
### Confirm a right angle

If there is no gap on the A and B sides, it is a right angle



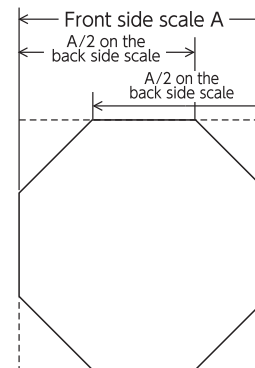
### Equal division

You can divide a material equally without measuring its width. For example, to divide into 6 equal parts, choose a number on the square divisible by 6, match that number as well as the 0 reference point to the edges of the material (turning diagonally if necessary) and mark the 6 sections on the material.



### Drawing a Regular Octagon

You can easily make a regular octagon using the back scale (square scale) for a square with sides of length of A on the front scale, as shown in the figure beside. Regular triangles, regular pentagons, regular hexagons, and regular heptagons can all be drawn with the carpenter's square. For example, when making a regular octagon from a 10 cm square (A = 10 cm)... Divide A by 2 (10/2 = 5) and then draw the regular octagon by connecting the points measured from both ends which correspond to 5 on the KAKUME scale.



### Warning

#### Risk of Electric Shock

Do not use in areas that may come in contact with electricity.

### Caution

Dropping and other strong impacts can cause deviations. Be sure to check accuracy before using.

## Specifications

Squareness of Scale Side Face	Less than 0.5 mm per 500 mm
Length Tolerance	500 mm±0.2 mm
Material	Stainless steel