

Example: Convert  $23^{\circ} 17' 52''$  to decimal degrees

Start at the smallest part first.

There are  $52''$  out of  $60''$  in one minute of arc. Compute the fraction

$$\frac{52}{60} = 0.8666'$$

Add this to the  $17'$  to get  $17.8666'$  out of the  $60'$  in one degree. Compute the fraction

$$\frac{17.8666}{60} = 0.29777^{\circ}$$

Add that to the  $23^{\circ}$  to get

$$23.29777^{\circ}$$