



\mathbf{N}_i : normal at point i
 \mathbf{p}_i : point i
 \mathbf{c}_i : color at point i (Phong)
 \mathbf{p} : point to be rendered
 $\mathbf{c}_{interpolated}$: interpolated color
 A_i : area of $\triangle(\mathbf{p}, \forall \mathbf{p}_{j \neq i})$
 A : area of $\triangle(\mathbf{p}_1, \mathbf{p}_2, \mathbf{p}_3)$

Gouraud Shading

$$\mathbf{c}_{interpolated} = \frac{\sum_{i=1}^3 A_i \mathbf{c}_i}{A}$$