This is for trying out stuff in LaTeX .
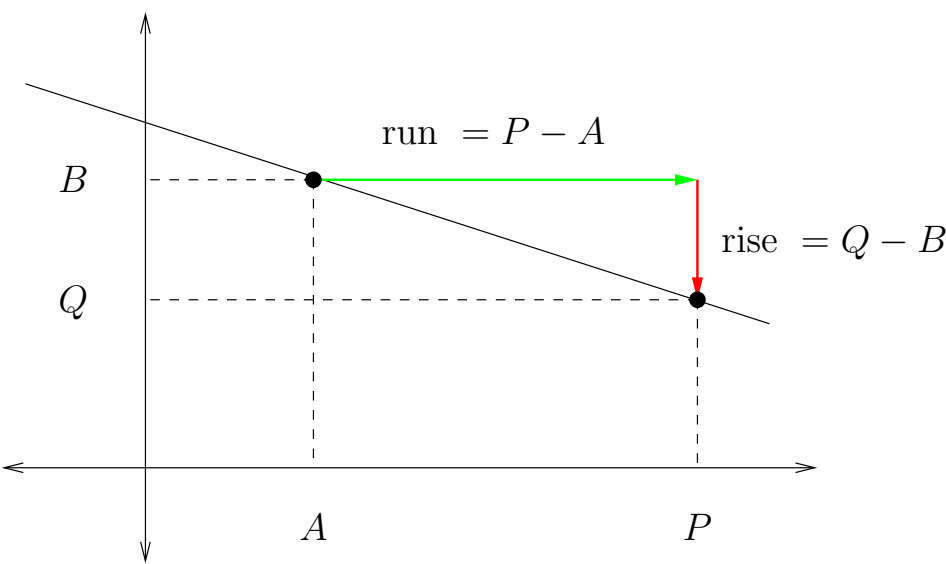
$$S^2 \xrightarrow{R_{X,\pi}} S^2$$

$$\downarrow s \qquad\qquad \downarrow s$$

$$\hat{\mathbb{C}} \xrightarrow[\text{inversion}]{} \hat{\mathbb{C}}$$

$$(a,b,c) \xrightarrow{R_{X,\pi}} (a,-b,-c)$$

$$\downarrow s \qquad\qquad\qquad \downarrow s$$

$$\frac{a+bi}{1-c} \xrightarrow[\text{inversion}]{} \frac{a-bi}{1+c}$$