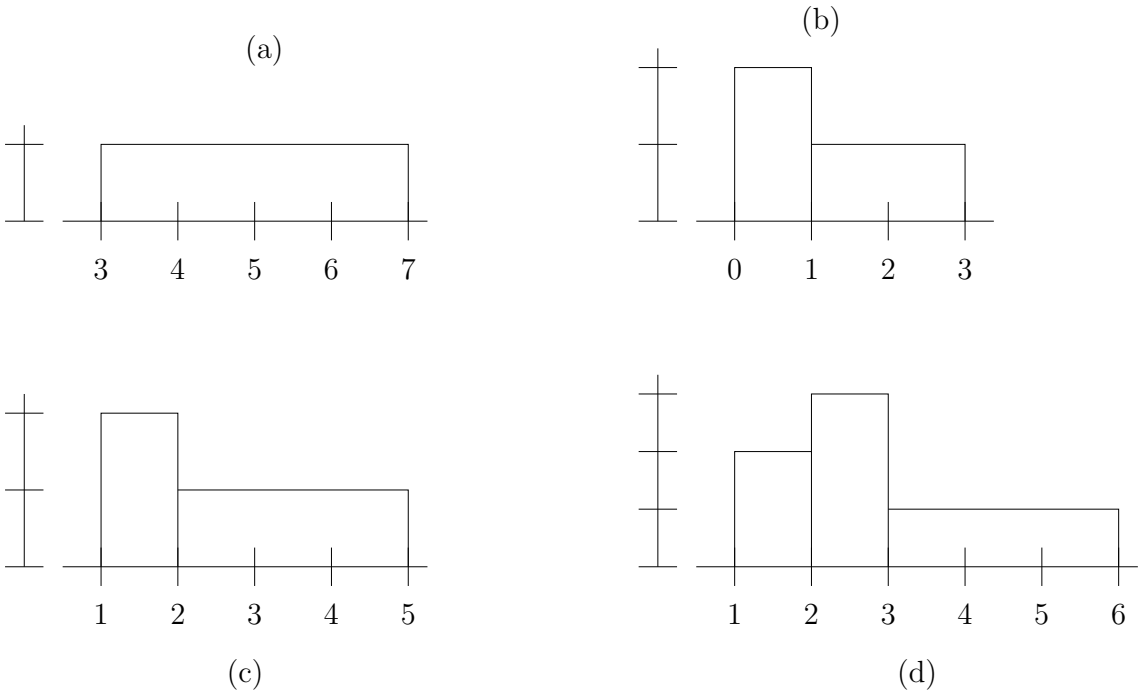
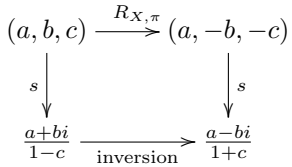
This is for trying out stuff in LaTeX .



$$\begin{array}{ccc} S^2 & \xrightarrow{R_{X,\pi}} & S^2 \\ {\scriptstyle s}\downarrow & & \downarrow{\scriptstyle s} \\ \hat{\mathbb{C}} & \xrightarrow[\text{inversion}]{} & \hat{\mathbb{C}} \end{array}$$


(a, b, c)
$R_{X,\pi}$
$(a, -b, -c)$
s
s
$\frac{a+bi}{1-c}$
inversion
$\frac{a-bi}{1+c}$