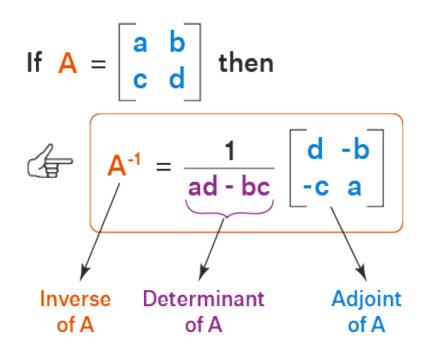
Inverse of 2x2 Matrix





Note: A^{-1} exists only when ad - bc $\neq 0$

Matrix A^{-1} =

$$\begin{pmatrix} a & b & c \\ d & e & f \\ g & h & i \end{pmatrix}^{-1}$$
 (matrix inverse)

$$\begin{pmatrix} \frac{fh-ei}{-aei+afh+bdi-bfg-cdh+ceg} & \frac{ch-bi}{aei-afh-bdi+bfg+cdh-ceg} & \frac{ce-bf}{-aei+afh+bdi-bfg-cdh+ceg} \\ \frac{fg-di}{aei-afh-bdi+bfg+cdh-ceg} & \frac{cg-ai}{-aei+afh+bdi-bfg-cdh+ceg} & \frac{cd-af}{aei-afh-bdi+bfg+cdh-ceg} \\ \frac{eg-dh}{-aei+afh+bdi-bfg-cdh+ceg} & \frac{bg-ah}{aei-afh-bdi+bfg+cdh-ceg} & \frac{bd-ae}{-aei+afh+bdi-bfg-cdh+ceg} \end{pmatrix}$$

Note that there are only 2 common denominators in each matrix element $\pm D$, where

D = ceg - cdh - bfg + bdi + afh - aei, and $D \neq 0$.