

Keeper #3: Determinant

what is a determinant?

- square matrices only
- used to find the inverse

Google
it!

$$A = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

$$\frac{\det A}{a \cdot d - b \cdot c}$$

$$B = \begin{bmatrix} 3 & 1 \\ 5 & 7 \end{bmatrix}$$

$$21 - 5$$

$$\det B = 16$$

$$A = \begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix}$$

$$aei + bfg + cdh$$

$$-gec - hfa - idb$$

$$\begin{bmatrix} 1 & 0 & 2 \\ 2 & 1 & 5 \\ 3 & 5 & 3 \end{bmatrix}$$

$$3 + 0 + 20$$

$$-6 - 25 - 0$$

$$23 - 31$$

$$\boxed{\det = -8}$$