## Eight Math Wonders

ENERGY AND MASS

$$
E=m c^{2}
$$

FORCE AND ACCELERATION

$$
\mathbf{F}=m \mathbf{a}
$$

GRAVITATIONAL FORCE

$$
F=G \frac{m_{1} m_{2}}{r^{2}}
$$

BLACK HOLE ENTROPY

$$
S=\frac{k c^{3} A}{4 \hbar G}
$$

## INFORMATION ENTROPY

$$
H=-\sum p_{k} \log p_{k}
$$

$$
\begin{array}{ll}
\text { MAXWELL'S ECUATIONS } \\
\nabla \cdot \mathbf{D}=\rho & \nabla \times \mathbf{E}=-\frac{\partial \mathbf{B}}{\partial t} \\
\nabla \cdot \mathbf{B}=0 & \nabla \times \mathbf{H}=\mathbf{J}+\frac{\partial \mathbf{D}}{\partial t}
\end{array}
$$

SCHRÖDINGER GQUATION

$$
i \hbar \frac{\partial}{\partial t} \Psi(\mathbf{r}, t)=\hat{H} \Psi(\mathbf{r}, t)
$$

$$
e^{i \pi}=-1
$$

