Gauss's law of magnetism

According to Gauss law, the surface integral of magnetic field over a closed loop is zero.

or,

According to Gauss law of magnetism the net magnetic flux through any closed surface is always zero.

$$\phi_m = \oint \vec{B} \cdot \vec{dS} = 0$$

$$\phi_m = 0$$

$\phi = \oint \vec{E} \cdot \vec{dS} = \frac{q}{\epsilon_0}$
$\oint \vec{B} \cdot \vec{dS} = \mu_0 m$
$= 0$

Reason →

(1) Isolated magnetic poles called monopoles do not exist

(2) magnetic poles always exist in unlike pairs of equal strength.