

Ethereum Gas: Fuel for the World Computer

$$\text{Transaction Fee} = \text{Gas Used} \times \text{Gas Price}$$

(in ETH)

(units)

(gwei/gas)

Common Gas Costs

Simple transfer	21,000 gas
ERC-20 transfer	~65,000 gas
Uniswap swap	~150,000 gas
NFT mint	~100,000 gas
Deploy contract	~500,000+ gas

Why Gas Exists

- * Prevents infinite loops
- * Compensates validators
- * Allocates scarce resources
- * Spam protection

Gas Limit vs Gas Used

Gas Limit: Maximum you're willing to spend (set by user)

Gas Used: Actual computation consumed (unused gas refunded)

If Gas Used > Gas Limit: Transaction fails, gas still consumed