

Proof of Work: The Mining Process

1. Block Data

Transactions
Previous Hash
Timestamp

2. Add Nonce

Nonce = 0, 1, 2...

Try millions of
values per second

3. Calculate Hash

SHA-256(data + nonce)

Compare to target

The Puzzle: Find hash with enough leading zeros

Target: 00000000000000000000abc... (more zeros = harder)

Winner: First miner to find valid hash broadcasts block & earns reward

Hard to find

Avg 10 min per block

Easy to verify

One hash check

Adjustable

Difficulty retargets