

## Mining Difficulty: Finding a Hash Below Target

**Target:** 00000000000000000000abc123...

(Hash must be below this value = must start with many zeros)

Nonce: 1 → Hash: 8f3a2b1c9e7d... **Too high** [X]

Nonce: 12345 → Hash: 4a7b3c2d1e9f... **Too high** [X]

Nonce: 987654 → Hash: 1c2d3e4f5a6b... **Too high** [X]

Nonce: 2,847,293 → Hash: 00003f2e1d4c... **Getting closer!** [X]

Nonce: 18,432,847 → Hash: 000000000000... **VALID!** [Y]

### Difficulty Adjustment

Bitcoin adjusts target every 2016 blocks (~2 weeks) to maintain 10-minute average block time