## **Blockchain Summative**

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## Task 1 - Mining Puzzles

1. User ID: wbbz74

3. Valid nonce: 3856645

4. Number of double hashes: 3856645

Time taken: 103.41s

5. Time to mine at initial difficulty of 1

Difficulty (D) 0.001 takes 103.41s

$$D=1 \implies 103.41 \times \frac{1}{0.001} = 103,410$$
 seconds

$$\Rightarrow \frac{103410}{60} = 1,723.5 \text{ minutes}$$
  
 $\Rightarrow \frac{1723.5}{60} = 28.72 \text{ hours.}$ 

$$\implies \frac{1723.5}{60} = 28.72 \text{ hours.}$$

Time to mine at peak 2018 difficulty of 7, 454, 968, 648, 263

$$D = 7454968648263 \implies 103.41 \times \frac{7454968648263}{0.001} = 7.70918 \times 10^{14} \text{ seconds}$$

$$\implies \frac{103410}{60 \times 60 \times 24} = 8.92266 \times 10^9 \text{ days}$$

$$\implies \frac{8922665600.88}{365.25} = 24,428,927.04 \text{ years}$$

$$\implies \frac{24428927.04}{1000} = 24,428.9 \text{ millenia.}$$

## Task 2 - bitcoin-testnet

1. User ID: wbbz74

## Task 3 - A Wise Investment?

400-500 WORDS ABOUT WHICH IS THE MOST WISE INVESTMENT? dfkjsdf df sdfk sdfkj sdfkj sdfkj sdfkj sdfkj sdfkj sdfkj sdfkj dfksjd fksjd f