

A1:C1	Block #1									
	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK
1		Block #62			Block #63			Block #64		
2		Transactions			Transactions			Transactions		
3										
4										
5										
6	ocks!									
7										
8										
9		Anuk Fernando (805423707)			Benjamin Cruz (UID: 005411384) This is like Minecraft right??			Shengyi Wei 606121960		
10		Metadata			Metadata			Metadata		
11	a331526d1e	Previous Hash	000068e0d3d2e9a321d5a72a3d9a9247		Previous Hash	0000ad7f3720c562392a1a87312de510		Previous Hash	0000d4d3c70d27d240f00d325fb9e20d	
12		Timestamp	3/22/2024 19:30		Timestamp	3/22/2024 19:54		Timestamp	3/22/2024 20:50	
13		Nonce	aafc		Nonce	0r4		Nonce	1oy	
14	2a3d9a9247	Hash	0000ad7f3720c562392a1a87312de510		Hash	0000d4d3c70d27d240f00d325fb9e20d		Hash	0000f7f2487c79f10373b342cf2fc0aa47	
15										
16										
17										
18										

Code:

```
function proofOfWork(sheet,index,range){
    var chr2Range = range.getA1Notation();
    sheet.getRange(13,index+1).setFormula('=CONCATENATE('+chr2Range+')');
    str = sheet.getRange(13,index+1).getValue()+'Nonce';
    var asciiString = '0123456789abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ'; //possible values of nonce
    var nonce = '';
    var blockStr = '';
    var hash = '';
    var threeZerohash = '';
    var threeZerononce = '';
    //nonce length 1
    for(var i=0;i<asciiString.length;i++){
        nonce = asciiString[i];
        blockStr = str+nonce;
        hash = SHA256(blockStr);
        if(hash.substring(0,3)=='000'&&threeZerohash==''){
            threeZerononce = nonce;
            threeZerohash = hash;
        }
        if(hash.substring(0,4)=='0000'){
            return [nonce,hash];
        }
    }
}
//nonce length 2
for(var i=0;i<asciiString.length;i++){
    for(var j=0;j<asciiString.length;j++){
        nonce = asciiString[i]+asciiString[j];
        blockStr = str+nonce;
        hash = SHA256(blockStr);
        if(hash.substring(0,3)=='000'&&threeZerohash==''){
            threeZerononce = nonce;
            threeZerohash = hash;
        }
        if(hash.substring(0,4)=='0000'){
            return [nonce,hash];
        }
    }
}
//nonce length 3
for(var i=0;i<asciiString.length;i++){
    for(var j=0;j<asciiString.length;j++){
        for(var k=0;k<asciiString.length;k++){
            nonce = asciiString[i]+asciiString[j]+asciiString[k];
            blockStr = str+nonce;
            hash = SHA256(blockStr);
            if(hash.substring(0,3)=='000'&&threeZerohash==''){
                threeZerononce = nonce;
                threeZerohash = hash;
            }
            if(hash.substring(0,4)=='0000'){
                return [nonce,hash];
            }
        }
    }
}
```

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    }
  }
}
//nonce length 4
for(var i=0;i<asciiString.length;i++){
  for(var j=0;j<asciiString.length;j++){
    for(var k=0;k<asciiString.length;k++){
      for(var l=0;l<asciiString.length;l++){
        nonce = asciiString[i]+asciiString[j]+asciiString[k]+asciiString[l];
        blockStr = str+nonce;
        hash = SHA256(blockStr);
        if(hash.substring(0,3)=='000' && threeZerohash==''){
          threeZerononce = nonce;
          threeZerohash = hash;
        }
        if(hash.substring(0,4)=='0000'){
          return[nonce,hash];
        }
      }
    }
  }
}
return [threeZerononce,threeZerohash];
}

```