Programming Assignment 4: Mining Write-up

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1. Block timing* :
   Time per block for difficulty 4: 3.7 seconds total or about 1.2 seconds per block
   Time per block for difficulty 5: 6.2 seconds total or about 2.1 seconds per block
   Time per block for difficulty 6: 27.9 seconds total or about 9.3 seconds per block
   *Disclaimer: Timing as accurate as a carbon-based lifeform's reaction time can be

2. Cryptocurrency difficulty rate :

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   Ravencoin              142.94 K
   Bitcoin GOLD           289.52 K
   Ethereum                11.02 P
   ```

3. Bonus :
   Let us use Ravencoin's difficulty hash rate of 142,940 and our difficulty rate of 4. If we take 142,940/4 we get 35,735 "difficulties of 4". We can then multiply our found average of 3.7 seconds by 35,735 to get 132,219.5 seconds total. But, based on my 3 trials, I think this number would be astronomically higher as I believe as the difficulty increase by 1, the time for the program to mine all blocks increases exponentially. I would like to hear your thoughts on this for sure.