1a) This model treats Bitcoin as being comparable to commodities such as gold, silver or platinum. These are known as 'store of value' commodities because they retain value over long time frames due to their relative scarcity. It is difficult to significantly increase their supply i.e. the process of searching for gold and then mining it is expensive and takes time. Bitcoin is similar because it is also scarce. In fact, it is the first-ever scarce digital object to exist. There are a limited number of coins in existence and it will take a lot of electricity and computing effort to mine the 3 million outstanding coins still to be mined, therefore the supply rate is consistently low.

Stock-to-flow ratios are used to evaluate the current stock of a commodity (total amount currently available) against the flow of new production (amount mined that specific year).

For store of value (SoV) commodities like gold, platinum, or silver, a high ratio indicates that they are mostly not consumed in industrial applications. Instead, the majority is stored as a monetary hedge, thus driving up the stock-to-flow ratio.

A higher ratio indicates that the commodity is increasingly scarce - and therefore more valuable as a store of value.

1b)

Black Scholes call price = 2.02