

Quiz

Under the Bitcoin protocol, a block can contain up to 1000000 bytes of transactions.

Miners can freely choose transactions to include in a block, and once they mine a block, they earn the transaction fees for each transaction in the block and an additional 12.5 BTC as a reward (as of May 2017).

Please find the maximum possible reward for creating a block using the following 12 transactions:

ID	Size (byte)	Fee (BTC)
1	57247	0.0887
2	98732	0.1856
3	134928	0.2307
4	77275	0.1522
5	29240	0.0532
6	15440	0.0250
7	70820	0.1409
8	139603	0.2541
9	63718	0.1147
10	143807	0.2660
11	190457	0.2933
12	40572	0.0686

Notes

A block cannot contain the same transaction more than once.

For simplicity, there are no dependencies between transactions, and any combination of transactions can be included in a block.

Also for the sake of simplicity you may ignore the fact that blocks must always contain a coinbase transaction.

Hint

Assuming the total size of a transaction that can be included in a block to be 500000 bytes instead of 1000000 bytes, the answer is 13.4376 BTC.