

# [Micoeconomics](https://assignbuster.com/micoeconomics/)

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Draw the marginal cost curve (MAC) and the average total cost (TACT) curve for a Type 1 mine. Your curves should be as neat as possible, but they do not have to be absolutely, perfectly precise. You should, however, clearly label each curve. MAC would be equal to PVC for every Type 1 mine firm.

Draw the short-run industry supply curve for the world copper market. Please indicate how much copper would be suppliedin a given month if the price of copper were

* (a) $1, 500 per ton;
* (b) $1, 000 per ton;
* (c) $500 per ton;
* (d) $200 per ton.

To graph the supply curve, the marginal cost is used since in the short term the supply decision depends on his. The marginal costs - which are equal to their average variable costs - were individually calculated for the Type 1 & 2 firms, and total capacities for both types of firms were calculated. These firms, as a total under their type, were graphed according to their MAC and cumulative capacities. The quantity supplied for prices P(a), P(b), P(c), P(d) were calculated based on the Mac's of each type - if the price is below the MAC of the firm, the firm would stop its reduction.

The quantities to be supplied for each price level is like below:

P(b) = 4 MN type 2+ 3 MN type 1 = MN $ P(c)= 4 MN type 2 +0 MN type 1 = 4 MN $ P(d) = O MN

1. Suppose that the world demand curve for copper is expected to be given by the formulaD(P) = 6, 700, 000, - 1, POOP, where D(P) denotes the quantity of copper demanded (measured in tons per month) when the market price is P (measured in dollars per ton). Given the supply curve you constructed, what would we expect to be the market equilibrium price for copper? How much copper will be bought and sold at this equilibrium price? How much copper will be produced by all of the Type 1 mines together? How much copper will be produced by all of the Type 2 mines together?
2. We populated the demand for a range of P, substituting the values to the above formula. As per the supply curve, we have used the short-term supply curve we constructed in the previous question. According to the the demand equalizes supply at the price of 600$ per ton, and at this price 6. 1 MN tons of copper would be Microeconomics By gelatinousness Out of this 6. MN tons - due to the lower MAC of the type 2 mines; be produced by Type 1 mines. 4 MN tons will be produced by Type 2 mines. 2. 1 MN tons.
3. Think of this part as " independent" from Task 3: Suppose that the market price of copper is expected to be $1, 000 per ton over the long run. Given this price expectation, would the owners of Type 1 mines want to permanently shut down their mines and withdraw them from the market? Would owners of Type 2 mines want to permanently shut down their mines and withdraw them from the market? Briefly explain your answer.
4. For the purpose of this question, you may assume that a mine has no scrap value, and has no alternative use to which it could be redeployed if it is withdrawn from the copper market. When the market price is expected to be 1000$ per ton over the long run; Type 1 exits the market since their exit price (1150 $/ton) is above market price. Type 2 stays in the market since their exit price (700 $/ton) is below market price Note that scraps are taken as zero value, consequently when calculating exit price, annually redeployment value is taken as zero.