

Quiz #5 (answer key)
ECNS 204
Snowmester 2020

1.) Aaron and Charlotte find themselves on a deserted island. The only two activities available are fishing and hunting rabbits. In a full day, Aaron can catch 4 fish or 2 rabbits; in the same time, Charlotte can catch 3 fish or 6 rabbits. Activities can be divided with no loss of efficiency. When left to their own devices, Aaron consumes 2 fish and Charlotte consumes 2 fish also.

a.) How many rabbits can each person consume acting alone?

Acting alone, Aaron can consume 1 rabbit and Charlotte can consume 2 rabbits.

b.) What are each individual's marginal costs of fishing and hunting rabbits?

For Aaron: the marginal cost of an additional fish is $\frac{1}{2}$ of a rabbit; the marginal cost of an additional rabbit is 2 fish. For Charlotte: the marginal cost of an additional fish is 2 rabbits; the marginal cost of an additional rabbit is $\frac{1}{2}$ of a fish.

c.) Explain how Aaron and Charlotte can improve their standard of living through specialization. If they decide to continue to consume 2 fish each, what is their gain from specialization and trade?

Aaron and Charlotte can improve their standard of living if Aaron specializes in fishing and Charlotte specializes in hunting. By doing so, after a day's work there will be a total of 4 fish and 6 rabbits caught. With reference to each individual's production/consumption schedule above, if they both consume 2 fish each, Aaron will consume 1 rabbit and Charlotte will consume 2 rabbits. There will be 3 rabbits leftover, the gains from specialization, that they can divide between themselves.