1. Assuming that the efficacy of indoor residual spraying (IRS) lasts maximum 9 months after the day of fumigation, make a numerical example and explain the total and marginal utility of receiving the intervention every year.

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| Quantity IRS | Marginal utility | Total utility |
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1. Depict the production possibility frontier using the Excel file attached. Name q1 and q2 and substitute the zeros of the two columns A and B (from row 2 to row 14) to automatically draw a graph representing a PPF. In columns C and D (to row 2 to row 14) substitute the zeros in order to draw another PPF that represents a technological improvement in comparison with the curve depicted from columns A and B. Then, briefly explain the graphs depicted.
2. In the graph representing demand and supply of bed nets depict and describe what will happen if instead of producing q\* (quantity of equilibrium) a lower quantity q\*-10 would be produced.

**D**

**E**

**S**

Equilibrium price p\*

Equilibrium quantity q\*

Quantity (q)

Price (p)