**Decision Variables:**

X is the number of hectares of wheat to be planted.

Y is the number of hectares of barley to be planted.

**Objective Function:**

Z is the total income, where wheat sells for $200 per hectare and barley sells for $300 per hectare.

*Z*=200*x*+300*y*

**Constraints:**

**Land Availability:**

The total planted area.

x + y ≤ 10

**Labor Hours Constraint:**

The total labor hours should not exceed 35 hours per week per person.

8x + 10y ≤ 35 × 2

**Water Availability:**

The total water consumption should not exceed the available 65 kiloliters per day.

6x + 9y ≤ 65

**Spouse's Request:**

Your spouse wants at least 3.5 hectares of wheat and 2.5 hectares of barley planted.

*x* ≥3.5

*y* ≥2.5