1) In the Venn Diagram below, shade in the region $(A \cap B) \cup (C - B)$. (3 points)



2) In a group of 100 students we know the following information:

- 25 are majoring in mathematics
- 60 are majoring in computer science
- 10 are double majoring in both mathematics and computer science

How many are majoring in computer science but not mathematics? (3 points)

There are 50 people majoring in computer science but not math.



3) Determine the truth value of $(P \lor Q) \land (R \lor \neg S)$ when:

- *P* is true
- *Q*, *R*, and *S* are false.

(answer = 1 point; supporting work = 3 points)

$$(T \lor F) \land (F \lor \neg F) = (T) \land (F \lor T) = T \land T = T$$