B) Carl Spackler is the Assistant Groundskeeper at a local country club. He wants to develop a new fertilizer at **minimum cost**. To do so, he will combine two ingredients, A and B, which cost $4 and $3 per pound, respectively. The final combination must contain **at least** 11 pounds of phosphate, at least 5 pounds of nitrate, and at least 2 pounds of a special compound found only in ingredient B. Ingredient A contains 10% phosphate and 25% nitrate. Ingredient B contains 20% phosphate, 5% nitrate, and 10% special compound. How many pounds of each ingredient are required to make the new fertilizer, and at what cost?

A = pounds of ingredient A

B = pounds of ingredient B

Min $4A + $3B

 10%A + 20%B ≥ 11 (phosphate)

 25%A + 5%B ≥ 5 (nitrate)

 10%B ≥ 2 (special compound)

A and B ≥ 0