1. (10 points) You are making an open rectangular box from an 8 in. by 15 in. piece of cardboard by cutting squares from the corners and folding up the sides. What are the dimensions of the box with the largest volume?

2. (4+6=10 points)

(a) Find \( \sum_{k=3}^{5} (2k^2 - 9) \)

(b) Find \( \sum_{k=1}^{n} (2k^2 - 5k + 7) \)