Simplify each answer and show all of your work.

1. (6 points) Compute the following sums.

(a) \[ \sum_{k=1}^{100} (4k + 3) \]

(b) \[ \sum_{i=3}^{62} \left( \sqrt{i+1} - \sqrt{i+2} \right) \]
2. (4 points) Find the area of the indicated circumscribed polygon.