Answer all of the following questions in the space provided. Show all work as partial credit may be given. Answers without justification, even if they are correct, will earn no credit.

1. (4 pts.) Suppose that a farmer wishes to fence off a rectangular garden of area 150 square feet. Express the total length of fencing used (in feet) as a function of the length of one of the the sides of the garden.
2. (3 pts. each) Compute each of the following limits.
(a) $\lim _{x \rightarrow 3} x^{2}-x+1$.
(b) $\lim _{x \rightarrow 2} \frac{x^{2}-4}{x-2}$.
