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CSE331

HW 1

Problem 1

* Submitted to handin

Problem 2

* Submitted to handin

Problem 3

Use proof by induction to prove

**Proof:**

Prove the base case

Base: n = 1

Assume for n = k, prove for n = k+1 (I used product rule)

Want to show:

Problem 4

Use proof by induction to prove

**Proof:**

Before beginning the induction proof I show the equivalency between eq. 1 and eq. 2:

So by proving eq. 2, I implicitly prove eq. 1 as well.

Base: ,

So this holds for the base case.

Assume for n = k, prove for n = k+1