An equation can be linearized in the following way:

**Problem**

Determine the steady state value of x in the following equation, given a steady state input of u = 2.

**Solution**

1. Determine the steady state value for x.

At steady state, , so:

**Problem**

Find the value for the function f(y,u,d) with and . The constant α is the partial derivative of f(y,u,d) with respect to y and evaluated at steady state conditions.

**Solution**

**Problem**

Find the value β for the function f(y,u,d) with uss=4 and yss=3. The constant β is the partial derivative of f(y,u,d) with respect to u and evaluated at steady state conditions.