Exercises 4.4

2. Using integration, calculate the length of the element in the last exer-cise.

```
clear all
clc
```

```
syms xi
```

```
C = [1 1; 3 1; 2 2];
J = C'* lin_deriv (xi);
eqs = norm(J);
L = int(eqs, -1, 1)
```

L =
$$\frac{\log(\sqrt{5}+2)}{2} + \sqrt{5}$$

```
function dn = lin_deriv (xi)
dn = [xi - 1/2
      xi + 1/2
      -2*xi];
end
```