```
clc;
clear;
g = 9.8;
theta0 = 30;
theta0 = theta0*pi/180;
L = 0.2;
m1 = 0.0;
m2 = pi/2;
k = sin(theta0);
f = @(x) (sqrt(1-k.^2*(sin(x)).^2)).^-1;
T = 4.0*sqrt(L/g)*integral(f,m1,m2);
disp(T);
```

```
    0.9633
```

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