```
% Supreeth Rao 1MS19EE057 Experiment 5
% Swing Curve

x1 = 0.45;
x2 = 1.25;
x3 = 0.55;
Eg = 1.1;
V = 1;
Pe = 0.9;
f = 50;
M = 0.016;
Pm = Pe;
Pm1 = Eg*V/x1;
Pm2 = Eg*V/x2;
Pm3 = Eg*V/x3;
d0 = asin(Pm/Pm1);
dmax = pi - asin(Pm/Pm3);
dr = ((Pm*(dmax-d0)-(Pm2*cos(d0)) + (Pm3*cos(dmax)))/(Pm3-Pm2));
dcr1 = acos(dr)
dcr = acosd(dr)
tcr = sqrt((2*M*(dcr1-d0)/(pi*f*Pm)))
```

```
dcr1 =

    2.0701


dcr =

  118.6063


tcr =

    0.0196
```

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