```
%% Problem 3 No Wake Rotation
B= 3;
R = 10;
C_L = 1;
lambda = 7;
alpha = 7;
r_R = 0.1:0.1:1;
lambda_r = lambda*r_R;

phi = atand(2./(3*lambda_r));
theta_p = phi - alpha;
phi_tip = atand(2./(3*lambda));
theta_t = phi - phi_tip;
c = (8*pi()*r_R.*R.*sind(phi))./(3*B*C_L*lambda_r);
```

phi	43.60282	25.46335	17.61258	13.3925	10.7843	9.019322	7.747772	6.788975	6.040565	5.440332
Theta_p	36.60282	18.46335	10.61258	6.392498	3.784298	2.019322	0.747772	-0.21103	-0.95943	-1.55967
Theta_T	38.16249	20.02301	12.17225	7.952166	5.343966	3.57899	2.30744	1.348643	0.600233	0
c	2.751258	1.715144	1.207086	0.924009	0.746451	0.625397	0.53781	0.47159	0.419807	0.378224

```
%% Problem 4 No Wake Rotation
B= 3;
R = 20;
C_L = 1;
lambda = 6.5;
alpha = 7;
r_R = [0.05, 0.15, 0.25, 0.35, 0.45, 0.55, 0.65, 0.75, 0.85, 0.95, 1];
lambda_r = lambda*r_R;

%% a). No Wake Rotation
phi = atand(2./(3.*lambda_r));
theta_p = phi - alpha;
phi_tip = atand(2./(3.*lambda));
theta_t = phi - phi_tip;
c = (8*pi().*r_R.*R.*sind(phi))./(3.*B.*C_L.*lambda_r);
```

phi	64.01	34.36	22.31	16.33	12.84	10.56	8.97	7.79	6.88	6.16	5.86
Theta_p	57.01	27.36	15.31	9.33	5.84	3.56	1.97	0.79	-0.12	-0.84	-1.14
Theta_T	58.15	28.51	16.45	10.48	6.98	4.71	3.11	1.93	1.02	0.31	0.00
c	7.72	4.85	3.26	2.42	1.91	1.58	1.34	1.16	1.03	0.92	0.88

```
%% b). Wake Rotation
phi = 2/3*atand(1./lambda_r);
theta_p = phi - alpha;
phi_tip = 2/3*atand(1./lambda);
theta_t = phi - phi_tip;
c = (8*pi().*r_R)./(B*C_L) .* (1 - cosd(phi));
```

phi	48.00	30.48	21.07	15.82	12.58	10.42	8.88	7.73	6.84	6.13	5.83
Theta_p	41.00	23.48	14.07	8.82	5.58	3.42	1.88	0.73	-0.16	-0.87	-1.17
Theta_T	42.17	24.65	15.24	9.99	6.75	4.59	3.05	1.90	1.01	0.30	0.00
c	0.14	0.17	0.14	0.11	0.09	0.08	0.07	0.06	0.05	0.05	0.04