Section 3.2: 1, 9, 10
Section 3.3: 2, 3, 4.
Section 3.4: 3, 4

Additional problems:

1. Show that $a_{k}=0$ if $k$ is an even number for the power series expansion $\tan (z)=\sum_{k=0}^{\infty} a_{k} z^{k}$ about $z_{0}=0$,
2. Find $a_{1}$ and $a_{3}$ for $\tan (z)$ in problem 1 .
