Please let me know if you find any typos or errors in the answers below.
Sec 5.3:
$2,3 \pi$
4, 0
8, 1/3
16, 1/2
$24,3 \ln 2$
26, 17/56
32, -12
38, 12
42, 6
44, $\left(1-e^{-9}\right) / 2$
Sec 5.4:
20, 9/2
$22,1 / \ln 2$
$24,(\ln 3-(\ln 5) / 2) / 2$

