

**Solution 21.11**

(a) Trapezoidal rule ( $n = 6$ ):

$$I = (10 - (-2)) \frac{35 + 2(5 - 10 + 2 + 5 + 3) + 20}{12} = 65$$

(b) Simpson's rules ( $n = 6$ ):

$$I = (10 - (-2)) \frac{35 + 4(5 + 2 + 3) + 2(-10 + 5) + 20}{18} = 56.66667$$