1. p. 170-1: 1(a)-(d), 2, 5, 7

2. Evaluate the following integrals

(a) \( \frac{1}{2\pi i} \int_C \frac{1}{(z + 2)(z - i)^2} \, dz \), where \( C \) is the circle of radius 2 centered at \( z = 1 \) traversed counterclockwise.

(b) \( \int_C \frac{\cos z}{(z - i)^3} \, dz \), where \( C \) is the circle of radius 2 centered at \( z = 1 \) traversed counterclockwise.