Section 7.3: Trig Integrals

Group work:

Problem 1 Evaluate the following integrals

(a)
$$\int \sin^3(4\theta) \cos^6(4\theta) d\theta$$

(b)
$$\int \tan^{23} x \sec^6 x \, dx$$

(c)
$$\int \tan^2 x \sec x \, dx$$
 Hint: $\int \sec x \, dx = \ln|\sec x + \tan x| + C$

(d)
$$\int \tan^2 x \sin x \, dx$$

Problem 2 Evaluate

$$\int_{-\pi}^{0} \sqrt{1 - \cos^2 x} \, dx.$$

Learning outcomes: