Homework 11

1. Find the indefinite integral using the substitution $x = 4 \sin \theta$.

$$\int \frac{1}{(16-x^2)^{\frac{3}{2}}} dx$$

2. Find the integral.

$$\int \cos^5 x \sin x \, dx$$

3. Use partial fractions to find the integral.

$$\int \frac{5-x}{2x^2+x-1} \mathrm{d}x$$