

Each problem is worth 5 points. Clear and complete justification is required for full credit.

1. Find an antiderivative of  $p(t) = \cos t + \frac{1}{\cos^2 t}$ .

$$P(t) = \sin t + \tan t, \text{ because then}$$

$P'(t) = \cos t + \sec^2 t$ , and that's what it means to be an antiderivative.

2. Find the indefinite integral  $\int \left( \frac{4}{t^2} - 2 \right) dt$ .

$$\int (4t^{-2} - 2) dt$$

$$= \frac{4t^{-1}}{1} - 2t + C$$

$$= \frac{-4}{t} - 2t + C$$

Nice  
Job