Section 7.1 Worksheet

1. Find the following indefinite integrals.

   (a) $\displaystyle\int (10u^{-3.5} + \pi u^{-1})\, du$

   (b) $\displaystyle\int \frac{e + 2t^3}{4t}\, dt$

2. The marginal profit, in dollars, for Brie cheese sold at a cheese store is given by

$$P'(x) = x(50x^2 + 30x),$$

where x is the amount of cheese sold, in hundreds of pounds. The "profit" is $-\$40$ when no cheese is sold.

(a) Find the profit function.

(b) Find the profit from selling 200 lbs of Brie cheese.