## Calculus Worksheet: Marginal Analysis: Revenue, Cost, Profit

The price-demand equation and the cost function for the production of table saws are given, respectively, by

x = 6,000 - 30 pand C(x) = 72,000 + 60x

where x is the number of saws that can be sold at a price of p per saw and C(x) is the total cost (in dollars) of producing x saws.

(A) Express the price p as a function of the demand x, and find the domain of this function.

(B) Find the marginal cost.

(C) Find the revenue function.

(D) Find the marginal revenue.

(E) Find R (1500) and R '(1500), and interpret these quantities.

- 2 | MarginalAnalysisRevenueCostProfit.nb
- (F) Find the profit function in terms of x.
- (G) Find the marginal profit.
- (H) Find P(1500) and P '(1500), and interpret these qunatities.