

**Answer on question 38839 – Math – Calculus**

A demand curve has equation  $q=100-5p$ , where  $p$  is price in dollars. A \$2 tax is imposed on consumers. Find the equation of the new demand curve. Sketch both curves.

Solution

After the tax had been imposed on consumers, the price is the raised for them by \$2. New price is  $p_1 = p + 2$  substitute it into given equation

$$q_1 = 100 - 5p_1 = 100 - 5(p + 2) = 90 - p.$$

Let us sketch them

