Mathematics 122 Quiz #2   Name: _____

1. Find the equation of the line through the points $(1, 3)$ and $(4, 2)$.

    _____

2. The initial cost of setting up a small factory to manufacture books is $5,000. Once the factory has been set up it costs $15 to make manufacture each book. The books are then sold at $35 each.

    (a) Give the equation of the total cost C to the manufacturer of producing a quality q books. (That is the cost of producing q books.)

    $$C(q) = \underline{\hspace{2cm}}$$

    (b) Give the equation for the total revenue R if the manufacturer produces q books.

    $$R(q) = \underline{\hspace{2cm}}$$

    (c) Give a formula for the profit π made by the company if q books sold.

    $$\pi(q) = \underline{\hspace{2cm}}$$

    (d) What number of books does the company need to sell to break even?

    Break even point is _____