Quiz 13

Your name and student ID number

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⇐ Name of the student on your left

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Quiz 13

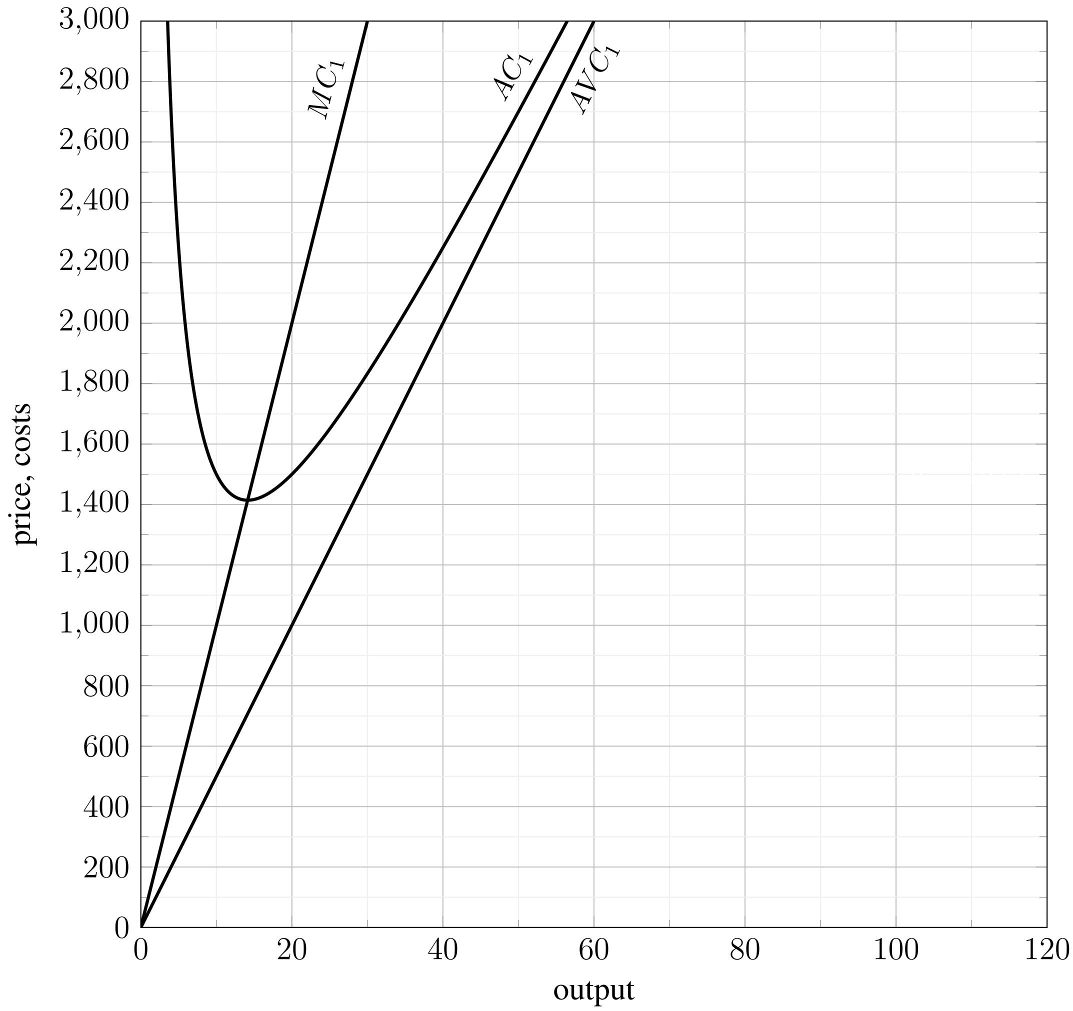
- Last week we looked at a firm whose cost function is given by $c(y) = 50y^2 + 10000$. Remember that
  - its average cost function is $AC(y) = 50y + \frac{10000}{y}$,
  - its average variable cost function is $AVC(y) = 50y$, and
  - its marginal cost function is $MC(y) = 100y$.

  - Write the mathematical formula for the firm's short-run supply curve. $y_1(p) =$

- Imagine that there are n identical firms with the above characteristics operating in the industry.

  - Write the mathematical formula for the industry's aggregate supply function. $y_n(p) =$

  - In the graph below (which shows the cost curves for a single firm), plot the aggregate supply function for $n = 1$, $n = 2$, $n = 3$ and $n = 4$.



  - Compute the price at which firms earn zero profits. $p^* =$
  - Represent the zero-profit price in the graph above (with a horizontal line).

- In the graph above, illustrate the industry's long-run supply curve by eliminating portions of the individual supply curves that can never be intersections with a downward-sloping market demand curve in the long run.