

Econ 302
Tutorial 1

1. Consider a competitive firm with a cost function given by $c[y] = 800 + 10y + 0.5y^2$.
 - (a) For the given cost function identify the variable and the fixed cost, as well as the $AVC[y]$, $AFC[y]$, $ATC[y]$, $MC[y]$.
 - (b) What is the shut-down price?
 - (c) What is the break-even price?
 - (d) What is the firm's supply?
 - (e) Assuming that the market price is $p = \$60$ find the profit maximizing quantity, the corresponding maximum profits, and the producer's surplus. Show your results graphically.
 - (f) Assuming that the market price is $p = \$40$ find the profit maximizing quantity, the corresponding maximum profits, and the producer's surplus. Show your results graphically.

2. Consider a competitive firm with a cost function given by $c[y] = 50 + 30y - 18y^2 + 3y^3$.
 - (a) For the given cost function identify the variable and the fixed cost, as well as the $AVC[y]$, $AFC[y]$, $ATC[y]$, $MC[y]$.
 - (b) What is the shut-down price?
 - (c) What is the firm's supply?