ACTIVITY 4

NAME OCT 12 Solution Set

ECONOMICS 101 IN-CLASS ACTIVITY FALL 2017 – 10 MINUTES
PLEASE COMPLETE THIS ACTIVITY ON YOUR OWN.

QUESTION

Given Qd= 1000-50P and Qs = -200+50P

a. Determine the equilibrium P + equilibrium Q.

SET QD = Qs

$$1000 - 50P = -200 + 50P$$
$$1000 + 200 = 50P + 50P$$
$$1200 = 100P$$
$$P = 12$$

$$Qs = -200 + 50(12)$$
$$= 400$$
$$QD = 1000 - 50(12)$$
$$= 400$$

b. Graphs these equation – careful inverse demand and supply function are required!

CHANGE EQUATION FROM /REARRANGE

$$Q = \ldots \text{ to } P =$$

TO OBTAIN CORRECT SLOPE/
INTERCEPT

$$P = 20 - .02 QD$$
$$P = 4 + 0.02 Qs$$
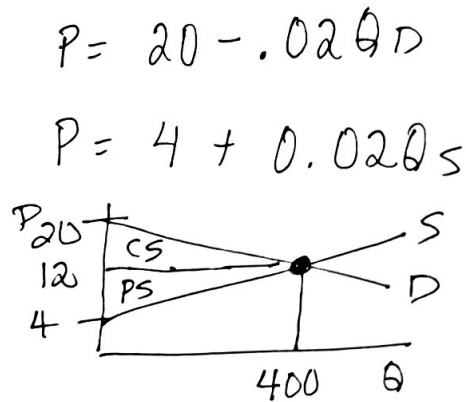

c. Determine the consumer surplus

$$CS = \tfrac{1}{2} bh$$
$$= \tfrac{1}{2}(400)(20-12)$$
$$= 1600$$

d. Determine the producer surplus

$$PS = \tfrac{1}{2} bh$$
$$= \tfrac{1}{2} 400(12-4)$$
$$= 1600$$

e. Show these on a graph.