ECO 260
Homework 1
Solutions

1. A.
   (i)   Set P = MC and solve for Q. (Q^C=9)
   (ii)   P = MC, so P^C=5.
   (iii) $CS^C = 0.5(50\text{-}5)(9) = 202.5$
   (iv) $PS^C = 0$
   (v) $W^C = CS^C + PS^C = 202.5$

   B.
   (i)   MR = 50 – 10Q
           Set MR = MC and solve for Q ($Q^M = 4.5$)
   (ii)   Plug Q^M into P = 50 – 5Q and solve for P^M. (P^M=27.5)
   (iii) $CS^M = 0.5(50 – 27.5)(4.5) = 50.63$.
   (iv) $PS^M = \pi^M = (27.5 – 5)(4.5) = 101.25$.
   (v) $W^M = CS^M – PS^M = 50.63 + 101.25 = 151.88$.

2. Solved similarly to (1).