Additional Note about Demand

Can reverse process to get WTP_M :

Input information:

• Demand: $Q_M^D = 30 - \frac{3}{2}P$

• Decision rule for last unit: $WTP_M = P$

Substituting and rearranging:

$$Q_{M}^{D} = 30 - \frac{3}{2}P$$

$$Q_M^D = 30 - \frac{3}{2}WTP_M$$

$$\frac{Q_M^D - 30}{-\frac{3}{2}} = WTP_M$$

$$-\frac{2}{3} Q_M^D + \frac{2}{3} 30 = WTP_M$$

$$WTP_M = 20 - \frac{2}{3}Q_M^D$$

Gives the WTP that goes with any particular unit:

Example: WTP for unit 15?

$$WTP_M = 20 - \frac{2}{3} * 15 = $10$$