

The following is a list of equations which you need to know for the exam and a list of equations you need to understand. You will **not** be able to bring any sheet into the exam with formulas. This list is not exhaustive but does include most of the equations we have used since the last exam.

Understand how to apply and interpretation – do not need to memorize

Own price elasticity of demand

$$E_D = \frac{\frac{(Q_1 - Q_0)}{\left(\frac{Q_1 + Q_0}{2}\right)}}{\frac{(P_1 - P_0)}{\left(\frac{P_1 + P_0}{2}\right)}} = \frac{\frac{(Q_1 - Q_0)}{\frac{1}{2}(Q_1 + Q_0)}}{\frac{1}{2}(P_1 + P_0)} = \frac{(Q_1 - Q_0)}{(Q_1 + Q_0)} \times \frac{(P_1 + P_0)}{(P_1 - P_0)}$$

Understand the relationships, underlying meaning, and the formulas by memory

$$E_D = \frac{\% \Delta Q^D}{\% \Delta P}$$

$$E_I = \frac{\% \Delta Q^D}{\% \Delta I}$$

$$E_{x,y} = \frac{\% \Delta Q_x^D}{\% \Delta P_y}$$

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y}$$

$$TC = TFC + TVC$$

$$AFC = \frac{TFC}{Q}$$

$$AVC = \frac{TVC}{Q}$$

$$ATC = \frac{TC}{Q}$$

$$MC = \frac{\Delta TC}{\Delta Q}$$

$$LRATC = \frac{LRTC}{Q}$$