**Unit 3 Problem Set: Supply and Demand**

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| **Demand** | **Supply** |
| **Definition of Demand:** | **Definition of Supply:** |
| **The Law of Demand**: | **The Law of Supply:** |
| **Why is demand downward sloping?** | **Why is supply upward sloping?** |
| **Demand Curve**Sand D    P and Q | Sand D**Supply Curve**  P and Q |
| **What changes quantity demanded?** | **What changes quantity supplied?** |
| **What changes in demand? (5 Shifters of Demand) 3 points** | **What changes supply? (6 Shifters of Supply)**  **3 points** |
| **Explain the difference between a “change in demand” and change in “quantity demand”** | |

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| **Supply and Demand Together** (show shortage and surplus in the graphs provided) | |
| **Show a surplus Show a shortage.** | |
| Sand D Double | **Equilibrium- Qd\_\_\_\_Qs**  **Shortage- Qd\_\_\_\_Qs**  **Surplus- Qd\_\_\_\_Qs** |
| **Economic Analysis- What happens to P and Q?**  **Sand D**  Cereal Market  **1. Draw Equilibrium**  **2.** **Analyze Change**   * Supply or Demand * Shifter- * Increase or Decrease   **3. New Equilibrium**   * What Happens to:   Price\_\_\_\_\_  Quantity\_\_\_\_\_\_                  Change: **Price of milk increases significantly** | |

## Demand and Supply Practice (0.75 pt. each)

## Use Economic Analysis to determine what happens to the price and quantity of an Apple iPhone in each scenario.

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| # | **Change** | **Graph** | **Economic Analysis** |
| **1** | It becomes known that all Apple stores will have a sale on iPhones 3 months from now. | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **2** | The workers who produce the iPhone go on strike for over two months. | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **3** | When the average price of other smart phones rises, it has an effect on the purchase of iPhones. (Analyze iPhones.) | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **4.** | Android apps (iPhone competitor) become more expensive and less useful. | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **5.** | Due to huge demand spikes, the price of iPad Minis, a product also supplied by Apple, rises. (Analyze iPhones.) | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **6.** | A reputable private research institute announces that children who play games on smartphones also improve their grades in school. | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **7.** | Because of the use of mass production techniques, workers in the smartphone industry become more productive | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **8.** | The price of cell phone plans and data usage decreases. (Analyze cell phones.) | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **9.** | The Federal government imposes a $5 per phone tax on smartphone manufacturers. | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **10** | Apple raises the existing price of its newest iPhone. | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **11** | In order to promote American production of phones, Congress provides a subsidy to phone producers. (Analyze only American phone firms) | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **12** | A large firm enters the smartphone business with a new line of phones. (Analyze the whole smartphone industry) | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |
| **13** | In order to make smartphones available to low-income families, Congress sets a price ceiling for the phones. | P and Q | 1. Draw and Label Equilibrium:  2. The Change:  Supply or Demand  Increase or Decrease  Shifter  3. After: Price \_\_\_\_\_ Quantity\_\_\_\_\_ |

## Adapted from The Study Guide by Walstad and Bingham p. 35, exercise 7, and Sally Dickson.