Practice problems (and answers): Supply and Equilibrium:

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- Find market supply from individual firm supply and plot the supply curve
- Use relationship graphs to show how the supply relationship shifts in response to a change in a determinant of supply

1. Find the market supply of sports watches from the following information from individual firms:

	A	B	C	D	M = A + B + C + D
Price	Go Sports	Time to Fly	AnyTime	Run Time	Market quantity supplied
$15	0	500	500	0	
$30	500	1000	1000	500	
$45	1500	1500	1500	1500	
$60	3000	2000	2000	2000	

2. Plot the market supply schedule in the graph space at right:

Market for sports watches
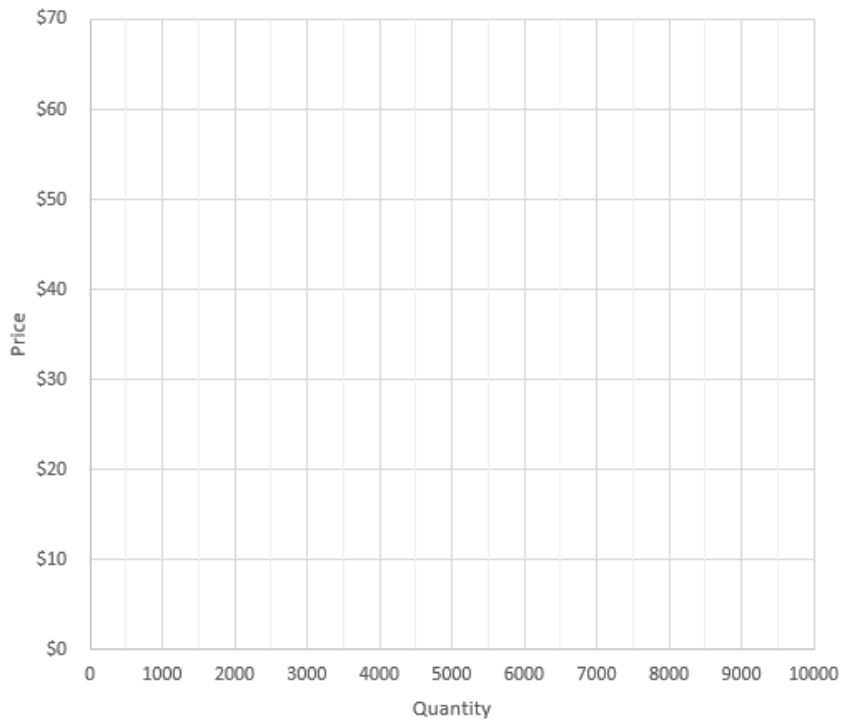
3. Suppose the metal components of watches become more expensive to acquire. This reduces the quantity supplied by 500 at any price. Column A contains the correct calculations from step 1. Calculate column B by subtracting 500 from each value in column A. Finally, plot the new supply curve in the graph above.

	A	B
Price	Original market quantity supplied	New market quantity supplied
$15	1000	
$30	3000	
$45	6000	
$60	9000	

4. Relationship graphs
   a. Show what would happen to the market supply of sports watches if there were a decrease in the cost of the materials for the wristbands. (Sketch and label both the original and new supply curves; use an arrow to show the direction of the shift).

Price

Quantity supplied

   b. Show what would happen to the market supply of sports watches if there were a new tax imposed on watches.
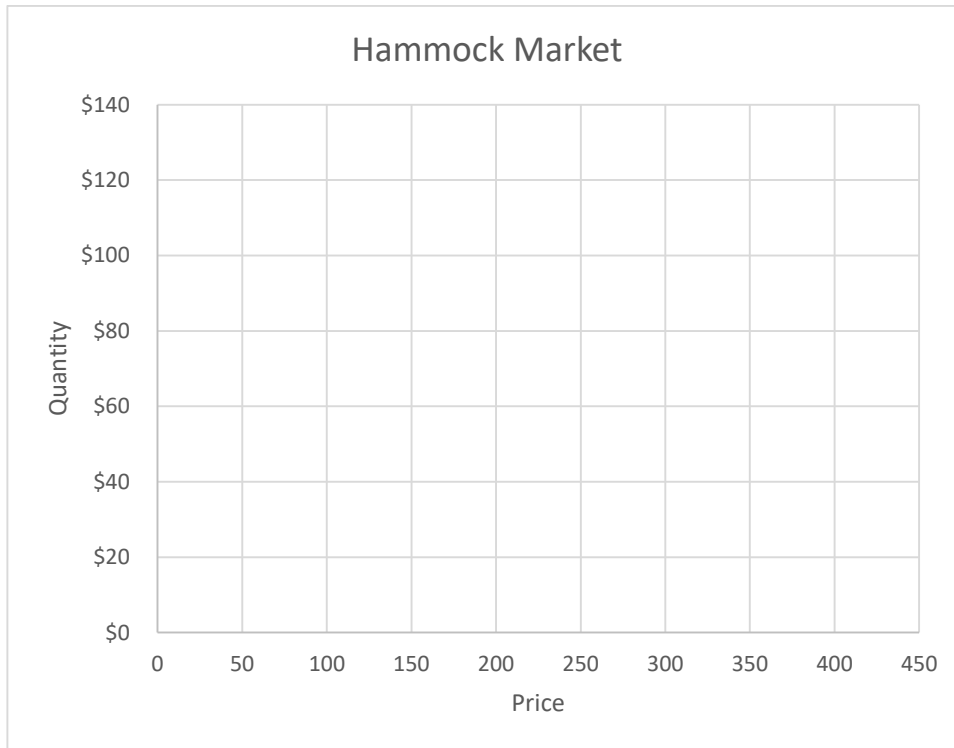
Price
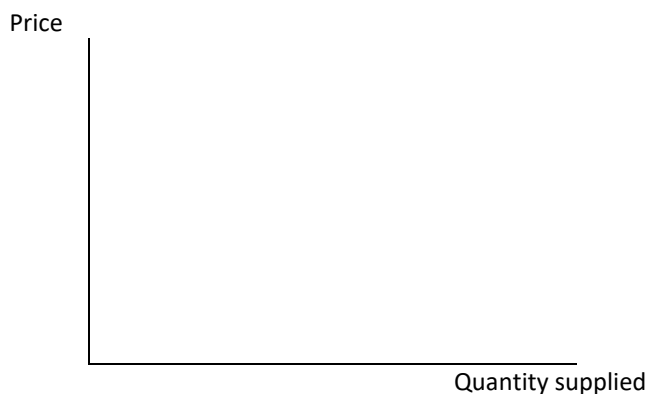
Quantity supplied

You are analyzing the market for hammocks. You've gathered data on the market supply and demand schedules:

Price (in $)	Quantity supplied	Quantity demanded
20	100	400
40	150	350
60	200	300
80	250	250
100	300	200
120	350	150

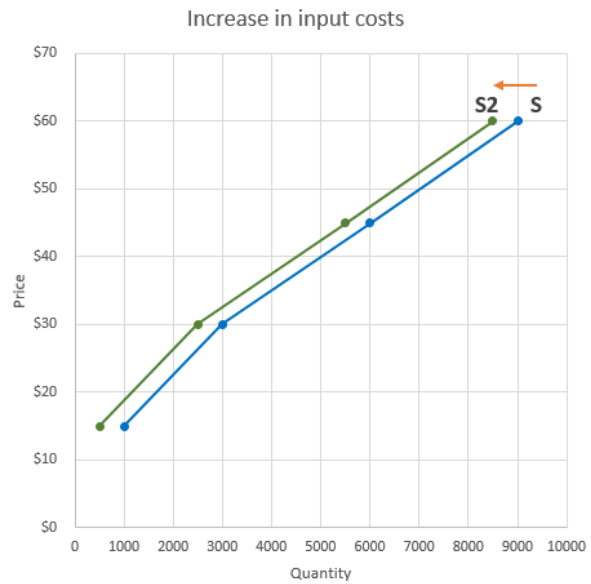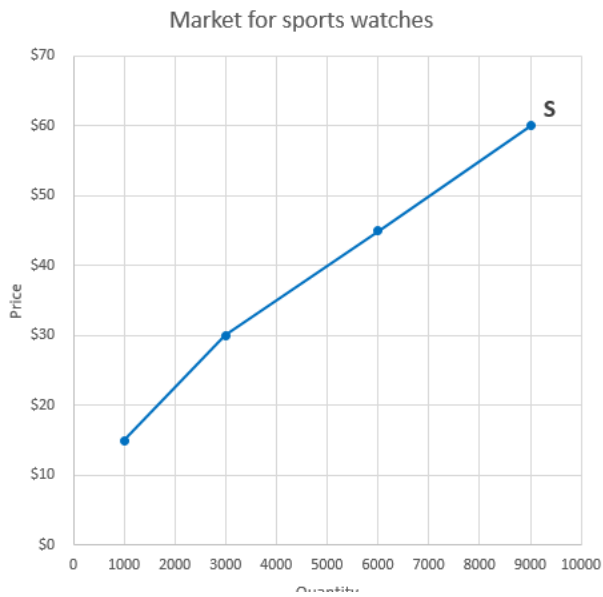1. The equilibrium price of hammocks is _____ and the equilibrium quantity of hammocks is _____

2. At a price of $20, there is excess **supply / demand** (circle one) of _____ hammocks.

3. At a price of $100, there is excess **supply / demand** (circle one) of _____ hammocks.

4. At a price of $60, there is excess **supply / demand** (circle one) of _____ hammocks.

5. Plot the supply and demand curves for hammocks. Indicate the equilibrium price and quantity.

Hammock Market

ANSWERS to "You Try It"

Market supply questions:

Market for sports watches

Increase in input costs

If the metal components of watches become more expensive to acquire, reducing quantity supplied by 500 at any price, the market supply curve shifts to the left (as seen in the graph on the left, where the original is S and the new curve is S2).

Relationship graphs
Decrease in cost of materials = decrease in input price = increase in supply

Price
Increase in supply
Curve shifts right
S
S2
Quantity
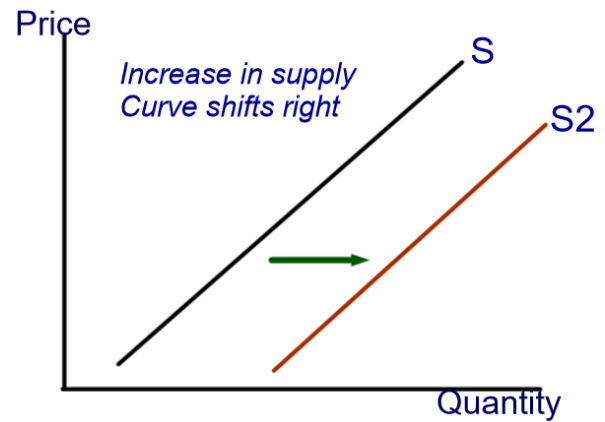
Tax imposed on suppliers ➔ decrease in supply

Price
S2
S
Decrease in supply
Curve shifts left
Quantity
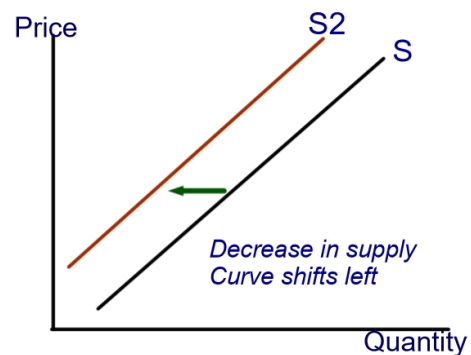
Equilibrium:
The equilibrium price of hammocks is _$80___ and the equilibrium quantity of hammocks is _250_____
At a price of $20, there is excess **demand** (circle one) of __300 (=400-100)___ hammocks.
At a price of $100, there is excess **supply** (circle one) of __100 (=300-200)__ hammocks.
At a price of $60, there is excess **demand** (circle one) of __100_____ hammocks.

Equilibrium price = $80
Equilibrium qua

Hammock Market