

# [Math problem](https://assignbuster.com/math-problem-essay-samples/)

and Section # of Marketing Math Assignment Question Overheads $100, 000 $200, 000 Selling Price/unit   
$40   
$40   
Variable Cost/ Unit   
$10   
$10   
Contribution Margin   
$30   
$30   
Break-even Point (in Units)   
3, 333   
6, 667   
The contribution margin is the amount that is used to cover the overheads and then contribute towards the profits. In this case, keeping the contribution margin constant, the increase in overheads increases the number of units required to breakeven. In the above scenario, the 100 percent increase in overheads caused the breakeven units to increase from 3, 333 units to 6, 667 units. Therefore, the consultants’ warning is true and accurate.   
Question 2   
Old   
New   
% Change in Quantity Demanded   
20   
15   
-0. 25   
% Change in Price   
80   
160   
1   
PEoD   
  
  
-0. 25   
Taking the absolute value, the price elasticity of demand is 0. 25. This implies that the demand for her service is price inelastic. The increase in price has very little influence on the demand of her services. Therefore, she could continue to raise the prices until her demand becomes price elastic.   
Question 3   
Therefore, the equilibrium price is $30 and the equilibrium quantity is 20 units.   
Question 4   
There are two methods of calculating mark-up:   
Markup on cost price = (Markup/Cost price)\*100   
Markup on selling price = (Markup/Selling Price)\*100   
Cost Price   
$500   
Selling Price   
$750   
Markup (or Profit)   
$250   
Markup based on CP   
50%   
Markup based on SP   
33. 33%   
Therefore, I believe that the advertisement slogan is unethical since the company sells the jewelry for a profit of more than 33% as proven in the above calculations.   
Works Cited   
Samuelson, P. A., Nordhaus W. D. Economics. McGraw-Hill (2001)