Very short answer questions

1. [4 marks] Which of the following graphs represents a graph of a function $y = f(x)$?

(a)  
(b)  
(c)  
(d)  

2. [4 marks] Plot the inverse of the function $y = f(x)$ given by the following graph. You may draw it on the same figure.
Long answer questions - You must show your work

3. [4 marks] Determine the largest possible set of points on which \( f(x) = \frac{1}{x-2} \) have an inverse. 
Calculate the inverse on this set.

Answer:

4. Little Jonny is selling lemonade on Wesbrook Mall in summer. He is selling a cup for $1 and sells 100 cups a week. One week he tried to raise the price by 10 cents and he sold 20 cups less that week.

(a) [4 marks] Find the demand function linking \( p \) and \( q \).
Hint: you may want to write \( q \) as a function of \( p \) in this question.

Answer:

(b) [4 marks] What is the price Jimmy needs to set for a cup of lemonade in order to maximize his revenue?

Put your answer in a calculator ready form.

Answer: