Sample problem for final #1

The Bogus bank has the following market value asset/liability structure:

- Assets: $10,000,000
- Liabilities: $9,000,000

Asset duration (modified): 8.0
Liability duration (modified): 2.0

The bank considers short-selling T-bonds with a modified duration of 10.0 and a price of $125.00 (percent of par).

What is the bank's interest rate exposure?

a) what is the bank equity Price Value of a basis point (PVBP)?

b) what is the effective equity duration (% sensitivity to interest rates)?

How many (dollar value) T-Bonds should the Bogus bank trade in order to minimize interest rate risk, assuming parallel changes in the yield curve? (Ignoring all other considerations).