Percent Yield Homework

I performed the following chemical reaction:

_____ C₃H₅OH + _____ O₂ → _____ CO₂ + _____ H₂O

1) Balance the equation in the spaces above.

2) What type of reaction is taking place here? _____

3) Complete the equation by showing symbols of state as well as symbols around the arrow and H values, if possible.

4) If I were to start with 45 grams of C₃H₅OH and an excess of oxygen, how many grams of carbon dioxide might I expect to make?

5) If my actual yield of carbon dioxide was 25 grams, what is my percent yield for this reaction?

6) Is my answer from problem #4 reasonable? If it is, explain why. If not, explain why not.

7) Explain why chemical reactions very rarely have a percent yield of 100%.