Name: ----------ID: ----------

Q. A jam producer claims that the mean weight of jam in a jar is exactly 230 grams. A random sample of 8 jars is selected and the weight of jam in each jar is determined. The average weight of these 8 jars is 225.25. Assume that the weight of jam in a jar is normally distributed with a standard deviation of 4 grams. Using a 0.05 significance level, test the claim of jam producer using three approaches namely: a). CR approach; b). p-value approach, c). CI approach.

1) **Hypothesis**

   H0: **----------**

   H1: **----------**

2) **Level of significance:** **----------**

3) **Summary of available information:----------**

4) **Test**

5) **a) p-value approach**

   b) Critical value or rejection region Approach

   c) CI Approach

6) **Decision (with justification):**

   a)

   b)

   c)

7) **Conclusion:**