

# Chemistry CP

Name: \_\_\_\_\_

## Percent Yield Problems

Date: \_\_\_\_\_

### A General Process for Problem Solving

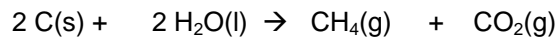
1. List what you know. <ul style="list-style-type: none"><li>• Is the equation balanced?</li><li>• What information are you given?</li><li>• What are you solving for?</li><li>• Set up the stoichiometric relationships table</li></ul>	2. Set up the problem. <ul style="list-style-type: none"><li>• Include conversion factors</li><li>• All factors should cancel out to give units of answer</li></ul>	3. Estimate and calculate. <ul style="list-style-type: none"><li>• Is the answer reasonable?</li><li>• Use significant figures</li></ul>
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$$\% \text{ yield} = \frac{\text{actual yield}}{\text{theoretical yield}} \times 100$$

1. Burning 10.0 g of iron(II) sulfide produces 7.00 g of solid product. What is the percent yield for this reaction?



2. 23.0 g of carbon react with excess water. What is the percent yield for this reaction if 11.7 g of methane are produced?



3. Determine the actual yield of  $\text{CCl}_4$  if 130 g of  $\text{Cl}_2$  react with methane. The percent yield of the reaction is 71.3%.

