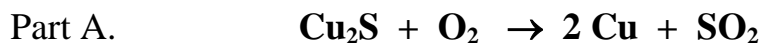


Chemistry 101
Unit #7 Practice Problems



1. When 10.2 mol Cu_2S react with oxygen, how many moles of Cu are formed?

Given:

Wanted:

Path:

Factors:

2. How many moles of O_2 are needed to react with 24.7 mol Cu_2S ?

Given:

Wanted:

Path:

Factors:

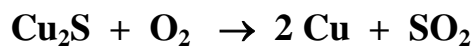
3. If 15.3 mol Cu are formed, how many moles of SO_2 are also produced?

Given:

Wanted:

Path:

Factors:



4. When 18.2 g Cu_2S react with oxygen, how many moles of SO_2 are formed?

Given:

Wanted:

Path:

Factors:

5. How many moles Cu are formed when 34.9 g O_2 react with Cu_2S ?

Given:

Wanted:

Path:

Factors:

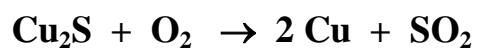
6. If 9.8 moles of Cu_2S react with oxygen, how many grams of Cu are formed?

Given:

Wanted:

Path:

Factors:



7. When 4.33 mol O_2 react with Cu_2S , how many grams of SO_2 are formed?

Given:

Wanted:

Path:

Factors:

8. When 42.7 g Cu_2S react with oxygen, how many grams of Cu are produced?

Given:

Wanted:

Path:

Factors:

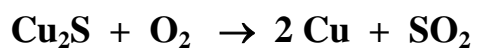
9. When 60.8 g Cu_2S react with oxygen, how many grams of SO_2 are produced?

Given:

Wanted:

Path:

Factors:



10. How many grams of O_2 are required to react with 38.9 g Cu_2S ?

Given:

Wanted:

Path:

Factors:

11. Calculate the theoretical yield of Cu when 53.2 g Cu_2S react with oxygen.

Given:

Wanted:

Path:

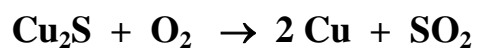
Factors:

12. Calculate the % yield in question #11 if 33.4 g Cu are actually collected.

Given:

Wanted:

Equation:



13. Calculate the theoretical yield of copper when 85.0 g O_2 react with Cu_2S .

Given:

Wanted:

Path:

Factors:

14. If 231 grams Cu are obtained in #13, what is the % yield?

Given:

Wanted:

Equation:

15. If 29.8 g Cu were obtained in the laboratory when the theoretical yield was 36.5 g Cu, what is the % yield for the reaction?

Given:

Wanted:

Equation:



16. When 14.7 moles Al react with HBr, how many moles H_2 are formed?

Given:

Wanted:

Path:

Factors:

17. How many moles of HBr are needed to react with 4.40 mol Al?

Given:

Wanted:

Path:

Factors:

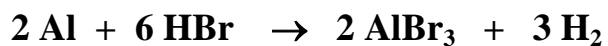
18. When 9.25 moles HBr react with Al, how many moles AlBr_3 are formed?

Given:

Wanted:

Path:

Factors:



19. When 6.88 moles HBr react with Al, how many moles H₂ are formed?

Given:

Wanted:

Path:

Factors:

20. When 15.6 mol Al react with HBr, how many grams of AlBr₃ are formed?

Given:

Wanted:

Path:

Factors:

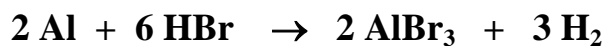
21. When 85.2 g HBr react with Al, how many moles of H₂ are produced?

Given:

Wanted:

Path:

Factors:



22. When 10.0 mol HBr react with Al, how many grams of H₂ are formed?

Given:

Wanted:

Path:

Factors:

23. How many moles HBr are required to react with 72.8 g of Al?

Given:

Wanted:

Path:

Factors:

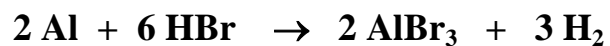
24. How many grams of AlBr₃ can be formed when 95.3 g Al react with HBr?

Given:

Wanted:

Path:

Factors:



25. How many grams of HBr are needed to react with 48.2 g Al?

Given:

Wanted:

Path:

Factors:

26. When 235 g HBr react with Al, how many grams of H₂ are produced?

Given:

Wanted:

Path:

Factors:

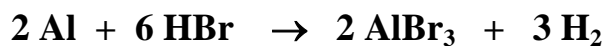
27. To form 65.0 g AlBr₃, how many grams of Al must react with HBr?

Given:

Wanted:

Path:

Factors:



28. Calculate the theoretical yield of AlBr_3 when 20.0 g Al react with HBr.

Given:

Wanted:

Path:

Factors:

29. If 175 g AlBr_3 are obtained in #28, what is the % yield?

Given:

Wanted:

Equation:

30. Calculate the theoretical yield of H_2 when 30.0 g Al react with HBr.

Given:

Wanted:

Path:

Factors:

31. If 3.08 g of H_2 are obtained in #30, what is the % yield?

Given:

Wanted:

Equation: