

AMINES

1. Draw the **structures** corresponding to the following **IUPAC names**.

a. Triethylamine.

b. N-Methylaniline.

c. p-Brompaniline.

d. N-Ethyl-N-Methylcyclopentylamine.

e. N,N-Dimethylaniline.

f. N-Methylcyclohexylamine.

g. Diphenylamine.

h. 4-Aminobutan-2-one.

2. Draw the **structures** of compounds that meet the following descriptions.

a. A secondary amine with one tert-butyl group.

b. A tertiary amine with one phenyl group and one methyl group.

c. A quaternary ammonium chloride salt.

3. Which compound in the following pairs is **more basic**?

a. $\text{CH}_3\text{CH}_2\text{NH}_2$ and $\text{CH}_3\text{CH}_2\text{CONH}_2$

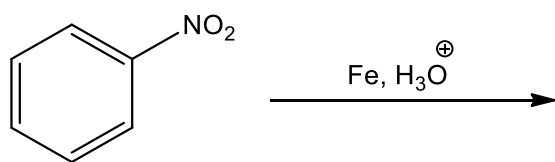
b. CH_3NHCH_3 and $\text{CH}_3\text{NHC}_6\text{H}_5$

c. NaOH and $\text{C}_6\text{H}_5\text{NH}_2$

d. CH_3NH_2 and $\text{C}_6\text{H}_5\text{NH}_2$

e. $\text{CH}_3\text{CH}_2\text{NH}_2$ and $(\text{CH}_3\text{CH}_2)_2\text{NH}$

4. Complete the following reaction.



5. How could you synthesize p-methylaniline from benzene?

6. How could you synthesize 3-aminobenzoic acid?

7. Complete the following reactions.

