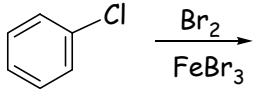
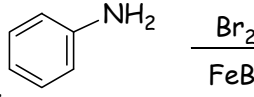
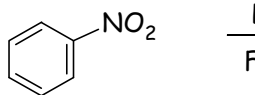
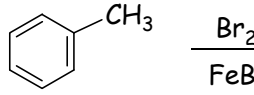
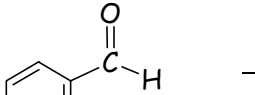
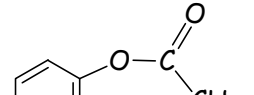
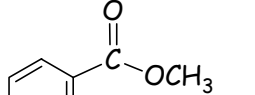
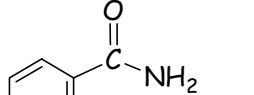
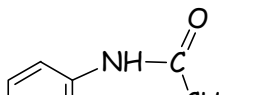
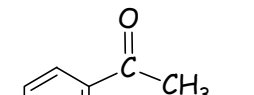
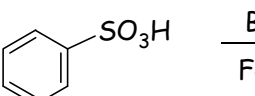
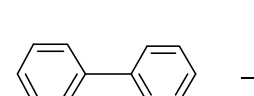
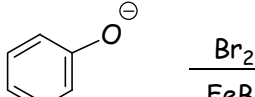
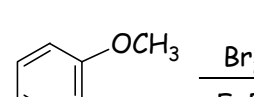
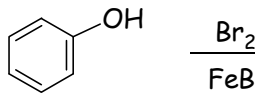
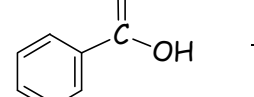


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Regiochemistry of substitution on mono-substituted aromatic rings.

- Ortho/para substitution is observed for aromatic rings that contain an activating group.
- Meta substitution is observed for aromatic rings that contain a deactivating group except for halogen groups which are o/p directors.

1. Draw the expected regioisomer for each reaction.

a. 	i. 
b. 	j. 
c. 	k. 
d. 	l. 
e. 	m. 
f. 	n. 
g. 	o. 
h. 	p. 

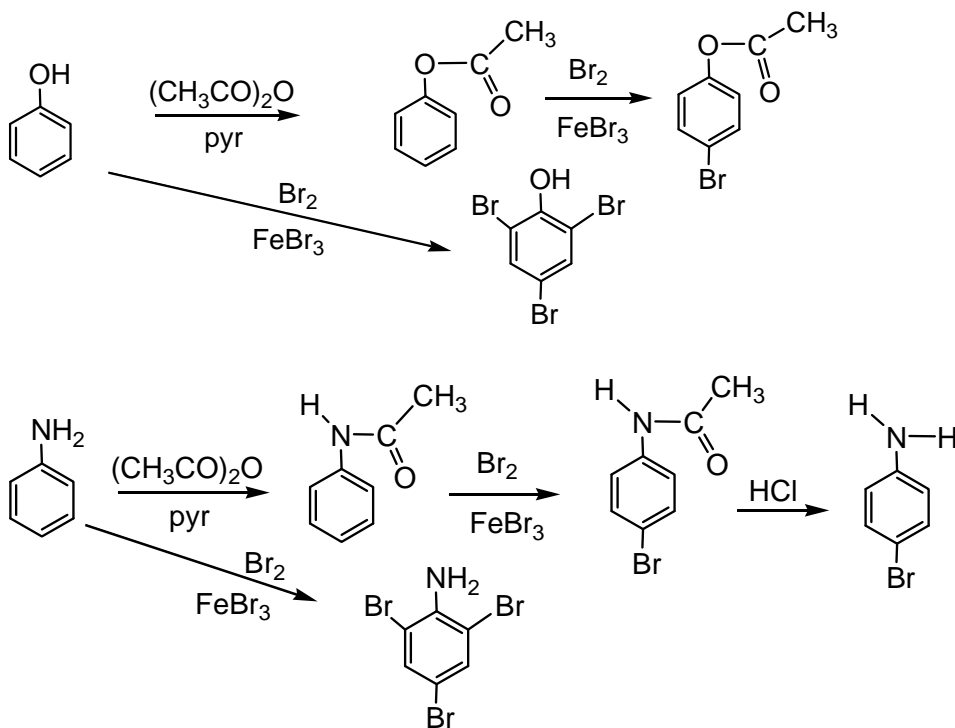
With two or more substituents on the ring, usually the stronger activating group has the greater influence on the regiochemistry.

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2. Draw the expected regioisomer product.

<p>a. </p>	<p>e. </p>
<p>b. </p>	<p>f. </p>
<p>c. </p>	<p>g. </p>
<p>d. </p>	

Strong activating groups such as hydroxy and amino can be attenuated via acylation of O and N:



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3. Provide a synthesis for each target below using the starting material given.

