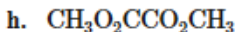
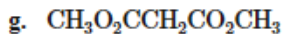
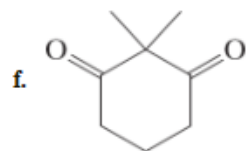
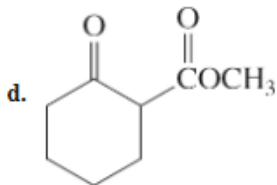
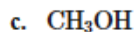
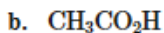
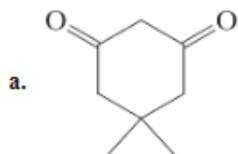
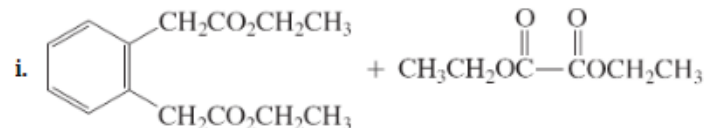
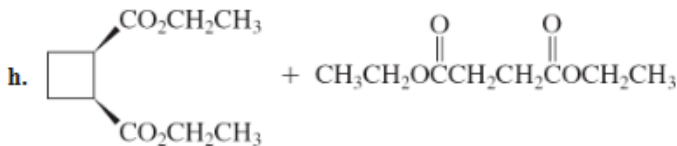
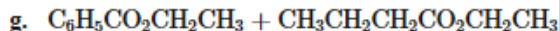
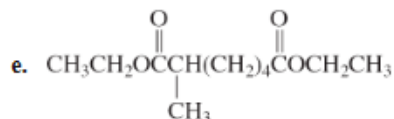
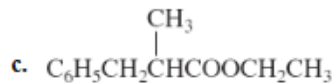
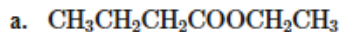


## Problems

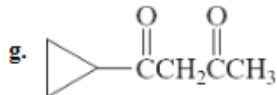
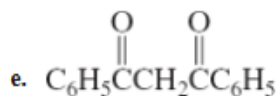
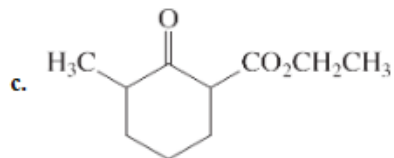
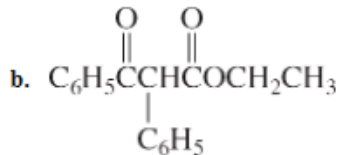
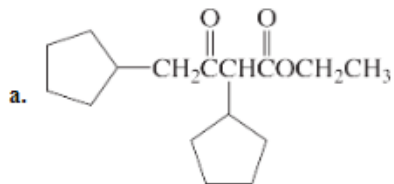
27. Arrange the following substances in order of increasing acidity. Estimate  $pK_a$  values for each.



28. Give the expected results of the reaction of each of the following molecules (or combinations of molecules) with excess  $\text{NaOCH}_2\text{CH}_3$  in  $\text{CH}_3\text{CH}_2\text{OH}$ , followed by aqueous acidic work-up.



30. Suggest a synthesis of each of the following  $\beta$ -dicarbonyl targets by Claisen or Dieckmann condensations.



32. Devise a preparation of each of the following ketones by using the acetoacetic ester synthesis.

