

## Problem 24

In each of Problems 23 and 24, determine the values of  $\alpha$ , if any, for which all solutions tend to zero as  $t \rightarrow \infty$ ; also determine the values of  $\alpha$ , if any, for which all (nonzero) solutions become unbounded as  $t \rightarrow \infty$ .

$$y'' + (3 - \alpha)y' - 2(\alpha - 1)y = 0$$