

**1a** = Problem **4** of Section 4.7 in the textbook.

**1b** = Problem **24** of Section 4.7 (not both these kinds of problems, rather one in the spirit of this Section).

**2** Find the Laplace transform of the following functions:

a. = Problem **10** of Section 5.1.

b. = Problem **29** of Section 5.1.

c. = Problem **32** of Section 5.2.

**3** Using the table of the Laplace transform and the properties of this transform and its inverse, find the inverse Laplace transform  $\mathcal{L}^{-1}(F)(t)$  of the functions defined for sufficiently large  $s$  by the following formulas:

a. = Problem **2** of Section 5.3.

b. = Problem **11** of Section 5.3.

c. = Problem **17** of Section 5.3.

d. = Problem **25** of Section 5.3.

**4** Using the Laplace transform, find the solution  $y(t)$  of the initial-value problem of Problem **17** of Section 5.4.

**5** = Problem **29** of Section 5.5.