

Name \_\_\_\_\_

Class Time \_\_\_\_\_

**Math 2250 Exam Review Problems**  
**Chapter 1, sections 1.4 and 1.5**  
**S2012**

**Problem ER-1. (Linear Integrating Factor Method)**

The symbolic solution of  $y' = -2xy$ ,  $y(0) = 2$  is  $y = 2e^{-x^2}$ . Display the details of the linear integrating factor method derivation of this symbolic solution, plus a full answer check.

*Staple this page on top of your hand-written report*

**Math 2250 Exam Review Problems**  
**Chapter 1, sections 1.4 and 1.5**  
**January 2012**

**Problem ER-2. (Variables Separable Method)**

The exact symbolic solution of  $y' = \frac{1}{2}(y - 1)^2$ ,  $y(0) = 2$  is  $y = \frac{x - 4}{x - 2}$ . Display the details of the variables separable method derivation of this symbolic solution, plus a full answer check.

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**End of Special Problems, exam review, chapter 1.**