

Math 242–HW 4 Rubric

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There are 28 points on this assignment.

1. 1 point for completion
2. 1 point for completion
3. 9 points. 1 point for trying to separate variable, 2 more points for correctly doing so. 4 points for correctly integrating each side, 2 points for solving for x .

Note that there are many possible forms of the correct answer, and a common (correct, but different) form that you may see is $(\ln(|\frac{t}{3}|) + C)^{1/3}$. This is correct, however, because $(\ln(|\frac{t}{3}|) + C)^{1/3} = (\ln(|t|) - \ln(3) + C)^{1/3}$, which gives the same general solution as in the answer key.

4. 1 point for completion
5. 16 points. 1 point for plugging in the numbers into the correct constants. 1 point for trying to separate variables and 2 more points for correctly doing so. 4 points for correctly integrating each side. 4 points for using the initial condition to solve for the integration constant (apply partial credit as appropriate). 1 point for computing $K(5)$. 1 point for writing a complete sentence for the interpretation, 1 point for including correct units in the interpretation, 1 point for having a correct interpretation.