Web**Assign**
Hw 13 (7.4): Integration by Partial Fractions (Homework)

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MA 162 Spring 2012, section 321, Spring 2012
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Current Score : 20 / 20   **Due :** Tuesday, February 14 2012 11:55 PM EST

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1. 3.33/3.33 points | [Previous Answers](#)   SCalcET7 7.4.002.

Write out the form of the partial fraction decomposition of the function ([See Example](#)). Do not determine the numerical values of the coefficients.

(a) $\dfrac{x}{x^2 + x - 6}$

✔

(b) $\dfrac{x^2}{x^2 + x + 3}$

✔

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2. 3.33/3.33 points | [Previous Answers](#)   SCalcET7 7.4.003.

Write out the form of the partial fraction decomposition of the function ([See Example](#)). Do not determine the numerical values of the coefficients.

(a) $\dfrac{x^4 + 4}{x^5 + 5x^3}$

✔

(b) $\dfrac{6}{(x^2 - 16)^2}$

✔

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3. 3.33/3.33 points | [Previous Answers](#)   SCalcET7 7.4.012.

Evaluate the integral.

$$\int_0^1 \frac{x - 8}{x^2 - 7x + 10}\, dx$$

✔

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4. 3.33/3.33 points | Previous Answers   SCalcET7 7.4.014.

Evaluate the integral. (Assume $a \neq b$. Remember to use ln $|u|$ where appropriate.)

$$\int \frac{7}{(x + a)(x + b)}\, dx$$

✔ $+ C$

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5. 3.33/3.33 points | Previous Answers   SCalcET7 7.4.015.

Evaluate the integral.

$$\int_4^5 \frac{x^3 - 2x^2 - 4}{x^3 - 2x^2}\, dx$$

✔

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6. 3.35/3.35 points | Previous Answers   SCalcET7 7.4.020.

Evaluate the integral. (Remember to use ln $|u|$ where appropriate.)

$$\int \frac{3x^2 - 25x + 43}{(2x + 1)(x - 2)^2}\, dx$$

✔ $+ C$

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