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INSTRUCTOR

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7.4 Fracciones Parciales (Homework)

Current Score

QUESTION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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POINTS

2/0	2/0	2/0	4/0	2/0	2/0	2/0	1/0	3/0	2/0	1/0	3/0	1/0	2/0	2/0	2/0
★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★

TOTAL SCORE

33/0

0.0%

Due Date

DECEMBER 21
11:59 PM CST



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Assignment Submission & Scoring

Assignment Submission

For this assignment, you submit answers by question parts. The number of submissions remaining for each question part only changes if you submit or change the answer.

Assignment Scoring

Your last submission is used for your score.

1. **2/0 points** Previous Answers SCalc8 7.4.002. My Notes

Ask Your Teacher

Write out the form of the partial fraction decomposition of the function (as in this [example](#)). Do not determine the numerical values of the coefficients.

(a) $\frac{x - 20}{x^2 + x - 20}$

 $Ax + 5 + Bx - 4$



(b) $\frac{x^2}{x^2 + x + 20}$

 $1 + -x - 20x^2 + x + 20$



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2. **2/0 points** Previous Answers SCalc8 7.4.004. My Notes[Ask Your Teacher](#)

Write out the form of the partial fraction decomposition of the function (as in this [example](#)). Do not determine the numerical values of the coefficients.

(a)
$$\frac{x^4 - 2x^3 + x^2 + 3x - 1}{x^2 - 2x + 1}$$

$$\frac{Ax + B}{x^2 - 2x + 1} + \frac{C}{x - 1} + \frac{D}{x - 1}$$



(b)
$$\frac{x^2 - 1}{x^3 + x^2 + x}$$

$$\frac{A}{x} + \frac{B}{x^2 + x + 1} + \frac{C}{x}$$



3. **2/0 points** Previous Answers SCalc8 7.4.501.XP. My Notes

Ask Your Teacher

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

(a) $\frac{x}{x^2 + x - 20}$

 $A(x+5)+B(x-4)$



(b) $\frac{x^2}{x^2 + x + 2}$

 $1 + -x - 2x^2 + x + 2$



4. **4/0 points** Previous Answers SCalc8 7.4.502.XP. My Notes

Ask Your Teacher

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

(a) $\frac{x^4 + 4}{x^5 + 6x^3}$

 $Ax + Bx^2 + Cx^3 + Dx + Ex^2 + 6$



(b) $\frac{2}{(x^2 - 1)^2}$

 $A(x+1) + B(x+1)^2 + C(x-1) + D(x-1)^2$



5. **2/0 points** [Previous Answers](#) SCalc8 7.4.516.XP.[My Notes](#)[Ask Your Teacher](#)

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

(a) $\frac{x^3}{x^2 + 4x + 3}$

 $(x-4)+A(x+3)+B(x+1)$



(b) $\frac{9x + 1}{(x + 1)^3(x^2 + 4)^2}$

 $Ax+1+B(x+1)^2+C(x+1)^3+Dx+E(x^2+4)+Fx+G(x^2+4)^2$

6. **2/0 points** [Previous Answers](#) SCalc8 7.4.009.[My Notes](#)[Ask Your Teacher](#)

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{65x + 7}{(8x + 1)(x - 1)} dx$$

 $18\ln(|8x+1|)+8\ln(|x-1|)+C$



7. **2/0 points** [Previous Answers](#) SCalc8 7.4.011.[My Notes](#)[Ask Your Teacher](#)

Evaluate the integral.

$$\int_0^1 \frac{30}{6x^2 + 7x + 1} dx$$

 $-6(\ln(25) + \ln(245) - \ln(145) - \ln(125))$

8. **1/0 points** [Previous Answers](#) SCalc8 7.4.014.[My Notes](#)[Ask Your Teacher](#)Evaluate the integral. (Assume $a \neq b$. Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{3}{(x+a)(x+b)} dx$$

 $3a - b \ln(|x+b|) - 3a - b \ln(|x+a|) + C$

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9. **3/0 points** [Previous Answers](#) SCalc8 7.4.023.MI.[My Notes](#)[Ask Your Teacher](#)Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{5}{(x-1)(x^2+4)} dx$$

 $-12(\ln(|x^2+4|)+\arctan(x^2))+\ln(|x-1|)+C$

10. **2/0 points** [Previous Answers](#) SCalc8 7.4.026.[My Notes](#)[Ask Your Teacher](#)Evaluate the integral. (Use C for the constant of integration.)

$$\int \frac{4x^2 + 5x + 4}{(x^2 + 1)^2} dx$$

 $-52(x^2+1)+4\arctan(x)+C$




11. 1/0 points Previous Answers SCalc8 7.4.505.XP.

 My Notes

Ask Your Teacher

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{7x^2 + 2x - 7}{x^3 - x} dx$$

 $7\ln(|x|) - \ln(|x+1|) + \ln(|x-1|) + C$ 


12. 3/0 points Previous Answers SCalc8 7.4.506.XP.

 My Notes

Ask Your Teacher

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{x^2 + 1}{(x - 7)(x - 6)^2} dx$$

 $-49\ln(|x-6|) + 37x - 6 + 50\ln(|x-7|) + C$ 

13.

1/0 points

[Previous Answers](#)

SCalc8 7.4.509.XP.

[My Notes](#)[Ask Your Teacher](#)

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{ds}{s^2(s-1)^2}$$

 $2(\ln(|s|) - \ln(|s-1|)) - \frac{1}{s} - \frac{1}{s-1} + C$



14.

2/0 points

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SCalc8 7.4.508.XP.

[My Notes](#)[Ask Your Teacher](#)

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{x^3 + 4}{x^2 + 4} dx$$

 $2(x^2 - \ln(|x^2+4|) + \arctan(x/2)) + C$



15. **2/0 points** [Previous Answers](#) SCalc8 7.4.513.XP.[My Notes](#)[Ask Your Teacher](#)

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{16dx}{x(x^2 + 4)^2}$$

 $2x^2+4-12\ln(|x^2+4|)+\ln(|x|)+C$ 16. **2/0 points** [Previous Answers](#) SCalc8 7.4.520.XP.[My Notes](#)[Ask Your Teacher](#)

Evaluate the integral. (Remember to use absolute values where appropriate. Use C for the constant of integration.)

$$\int \frac{5}{(t+4)(t-3)} dt$$

 $57(\ln(|t-3|)-\ln(|t+4|))+C$ [Submit Assignment](#)[Save Assignment Progress](#)[Home](#)[My Assignments](#)[Extension Request](#)

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