

APPM 4/5520

Review Problems for Exam II, Sections 7.3-7.4

1. $\int \frac{2x+1}{x^2-7x+12} dx$
2. $\int \frac{y^4+81}{y(y^2+9)^2} dy$
3. $\int \frac{2y^4}{y^3-y^2+y-1} dy$
4. $\int \frac{(1-x^2)^{3/2}}{x^6} dx$
5. Solve $(x^2 + 4) \frac{dy}{dx} = 3$, $y(2) = 0$
6. $\int \frac{dx}{(x^2-1)^2} dx$
7. $\int \frac{\sin \theta d\theta}{\cos^2 \theta + \cos \theta - 2}$
8. $\int_{1/12}^{1/4} \frac{2 dx}{\sqrt{x+4x}\sqrt{x}}$
9. $\int \frac{t^3 dt}{\sqrt{t^2+4}}$
10. $\int \sqrt{9-x^2} dx$