



WIR 5

Problem 1. Compute $\int \frac{x^2}{\sqrt{9-x^2}} dx$.

Problem 2. Compute $\int_{x=0}^2 \frac{x}{\sqrt{36-4x^2}} dx$.

Problem 3. Compute $\int_{t=0}^2 \frac{1}{\sqrt{4+t^2}} dt$.

Problem 4. Compute $\int_{t=0}^a t^2 \sqrt{a^2 - t^2} dt$.

Problem 5. Compute $\int \frac{1}{t^2+2t+5} dt$.

Problem 6. Compute $\int \frac{t^2}{(3+4t-4t^2)^{\frac{3}{2}}} dt$.

Problem 7. Compute $\int \frac{5x+1}{(2x+1)(x-1)} dx$.

Problem 8. Compute $\int \frac{x^2+x+1}{(x+1)^2(x+2)} dx$.

Problem 9. Compute $\int \frac{10}{(x-1)(x^2+9)} dx$.



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Math 152 – Fall 2022
“Week-in-Review”

Problem 10. Compute $\int \frac{x^5+x-1}{x^3+1} dx$.

Problem 11. Compute $\int \frac{x^3-2x^2+2x-5}{x^4+4x^2+3} dx$.

Problem 12. Compute $\int \frac{dx}{x\sqrt{x-1}} dx$.

Problem 13. Compute $\int \frac{dx}{x^2+x\sqrt{x}} dx$.

Problem 14. Compute $\int \frac{e^{2x}}{e^{2x}+3e^x+2} dx$.