

Assignment 5 (1/13)

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Problem 1

Find the integrals of the following functions:

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

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

(c) $\frac{1}{x^4+4}$

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

(e) $\frac{1}{x(a+bx)^2}$

(f) $x^3 \arctan(x)$

(g) $\frac{\sqrt{4+x^2}}{x} - \frac{x}{\sqrt{4+x^2}}$

(h) $\frac{1}{x^3-a^3}$