b) $\int \dfrac{x^2}{x^4 + x^2 - 2}\ dx \quad \left[Q(x) = (x^2 - 1)(x^2 + 1) \right]$

c) $\int \dfrac{3x^2 + x - 2}{(x - 1)^3(x^2 + 1)}\ dx$

9. Evaluate

a) $\int \dfrac{x}{x^3 - 3x + 2}\ dx \quad \left[Q(x) = (x - 1)^2(x + 2) \right]$

b) $\int \dfrac{x^2}{(x^2 + 1)^2}\ dx, \quad$ c) $\int \dfrac{dx}{x^6 - 1}$

d) $\int \dfrac{dx}{x^4 + 2x^2 + 2} \quad \left[Q(x) = (x^2 + \sqrt{\sqrt{8} - 2}\, x + \sqrt{2}) \cdot (x^2 - \sqrt{\sqrt{8} - 2}\, x + \sqrt{2}) \right]$

10. Evaluate

$$\int \dfrac{x + 1}{x^3(x^2 + 1)^2}\ dx$$

11. Evaluate

$$\int \dfrac{3x^2 + x - 2}{(x - 1)^3(x^2 + 1)}\ dx$$

12. Evaluate

a) $\int \dfrac{-4x^2 + x - 1}{x(x - 1)(x^2 + 1)^2}\ dx \quad$ b) $\int \dfrac{dx}{4x^2 + 2x + 3}$

13. Evaluate $\displaystyle\int_0^\infty \dfrac{dx}{x^4 + 1}; \quad \left[x^4 + 1 = (x^2 - \sqrt{2}x + 1)(x^2 - \sqrt{2}x + 1) \right]$

14. Evaluate

a) $\int \dfrac{5x - 2}{x^2 - 4}\ dx \quad$ b) $\int \dfrac{x^2\,dx}{x^3 - 3x + 2} \quad$ (See 9a)

c) $\int \dfrac{6x^2 - 5x - 9}{x^3 - 2x^2 - x + 2}\ dx \quad \left[Q(x) = (x - 1)(x^2 - x - 2) \right]$

d) $\int \dfrac{x^2 + 5x + 1}{x(x + 1)^2}\ dx$

15. Evaluate

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