

Hint: write the last one first in the form

$$A/(x^2 - 1) + B/(1 + x^2)$$

Lecture 40: Worksheet

Partial fractions

1 Integrate $\frac{1}{1+x}$.

2 Integrate $\frac{9}{(x-1)^2}$.

3 Integrate $\frac{7}{x^2+1}$.

4 Integrate $\frac{1}{1-x^4}$