

Math 231, HW # 3

(due Tuesday, Feb 6)

1)-6) Section 7.4, pp 509-510: 14,41,44,58,60,62.

Evaluate the following integrals on the indicated interval

$$7) \int \frac{x-1}{x^2+2x+5} dx \quad \mathbb{R}$$

$$8) \int \frac{(a-b)x}{x^2-(a+b)x+ab} dx \quad (a,b)$$

$$9) \int \frac{x^4+1}{(x-1)^2} dx \quad (1, \infty)$$

$$10) \int \frac{x^2-2}{(x^2+1)(x-2)^2} dx \quad (2, \infty)$$

$$11) \int \frac{x^2+2}{x(x^2+1)(x^2+4)} dx \quad (-\infty, 0)$$

$$12) \int \frac{x^2}{(x+1)^2(x^2-6x+10)} dx \quad (-1, \infty).$$