

Lecture 1 solution to slides

$$\cdot (1-y^{-2})(y^2-2y^{-1}+3)=$$

$$= y^2-2y^{-1}+2-3y^{-2}+2y^{-3}$$

$$\cdot (1+\sqrt{7})(1-\sqrt{7}) = -6$$

$$\cdot \frac{8^3 \sqrt{x} z^4 \sqrt{y} \cdot \sqrt{1/2}}{-2^3 \sqrt{x} \sqrt{y} \sqrt{z}} = -4 x^{1/3} y^{-9/4} z^4$$

$$\cdot e^{3x} + 2e^{2x} + 1 = e^x (e^x + 1)^2$$

$$\cdot 7x^3y - 28xy = 7xy(x-2)(x+2)$$

$$\cdot \frac{30x^2 - 30a^2}{x+a} = 30(x-a)$$

when $x \neq -a$