

Selected Solutions to HW 8:

[1.19] Given  $u^4 + 6u - 2 = 0$  we have

$$u^6 - 2u^3 = u^2(u^4 + 6u - 2) + (-8u^3 + 2u^2) = -8u^3 + 2u^2.$$

We also have

$$u(u^3 + 6) = 2,$$

therefore

$$u^{-1} = (1/2)u^3 + 3.$$

See also Exam 2 Solutions, problem 2e.