5.5 d

$$\frac{1}{\mu} = \frac{1}{2 i \hat{\sigma}_x}$$

as $\sigma_x \to 0$, $\frac{1}{\mu}$ becomes dominant term

$$\Downarrow$$

$$\mu \approx 2 i \hat{\sigma}_x$$

$$\mu \hat{Z} = 2 \rho K u Z \cdot \mu \qquad \rho \propto \hat{\sigma}_x^{-2/3} \qquad \hat{\sigma}_x = \sigma_x \sqrt{2 K_i K_u \rho}$$

$$\propto 2 \left(\sigma_x^{-2/3} \right) \rho K u Z \left(2 i \hat{\sigma}_x \right)$$

$$\propto 2 \left(\sigma_x^{-2/3} \right) K u Z \left(2 i \right) \left(\sigma_x \right) \left(2 K_i K_u \rho \right)^{1/2}$$

$$\propto 2 \left(\sigma_x \right)^{1/3} K u Z \left(2 i \right) \left(2 k i K_u \right)^{1/2} \sigma_x^{-1/3}$$

$$\mu \hat{Z} \propto 4 K u Z i \sqrt{2 K_i K_u}$$

$\uparrow$ Doesn't scale by σ_x at all!