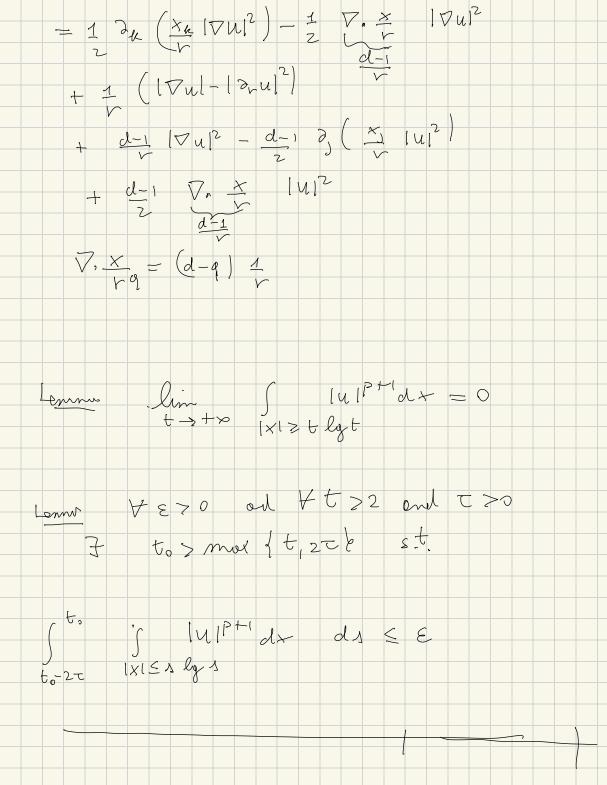
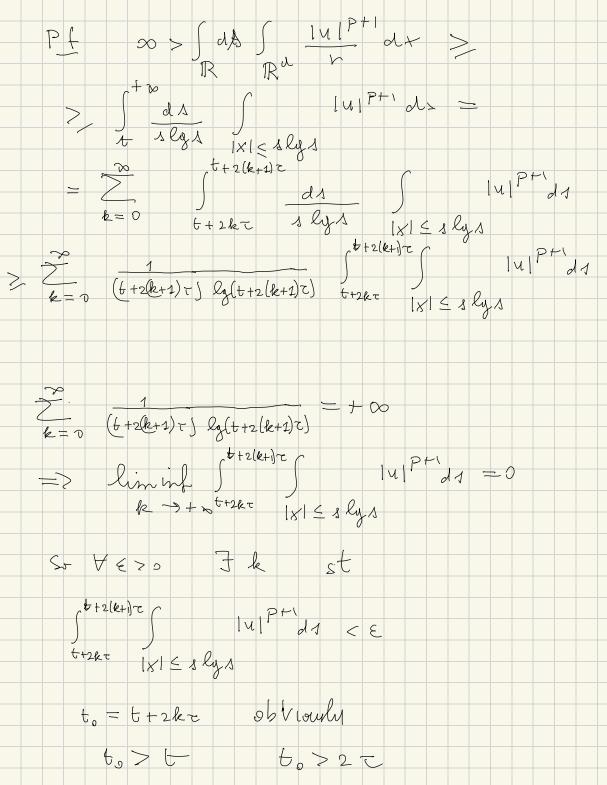
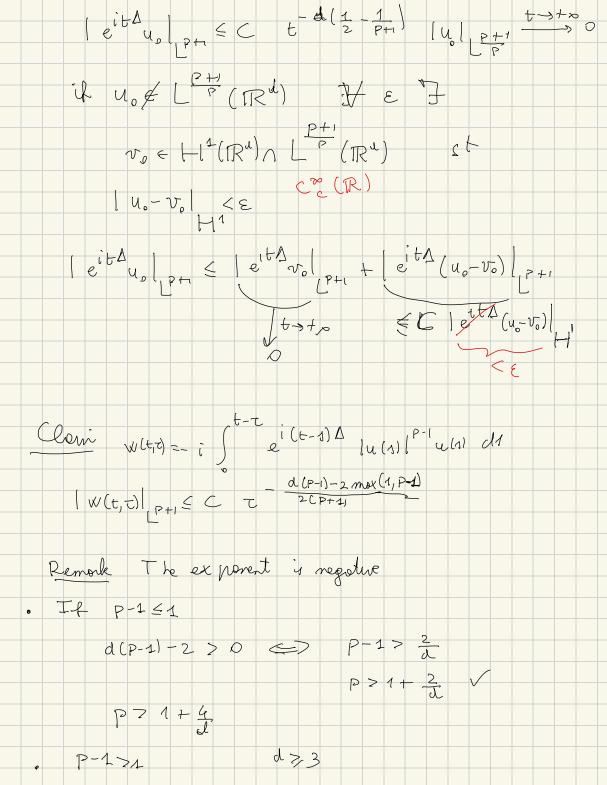
Re
$$\{\Delta u (\bar{u}_{1} + d_{-1} \bar{u})\} = (-\infty(R^{d}))$$

Re $\{\Delta u (\bar{u}_{1} + d_{-1} \bar{u})\} = (-\nabla \cdot (\frac{\pi}{2} |\nabla u|^{2}))$
 $+ \nabla (d_{-1} \times |u|^{2})$
 $- (|\nabla u|^{2} - |u|^{2})$
 $+ (|\nabla u|^{2} - |u|^{2})$







$$d(p-1)-2(p-4) = (d-2)(p-1) \ge p-1 > 1$$

$$Pf$$

$$w(t, 0) = i \int_{0}^{t-1} \frac{1}{2} (t-4) \Delta |u(s)|^{p-1} |u(s)|^{d} ds$$

$$q = \begin{cases} t + \infty & |x| & |y| \ge 2 \\ 2 - p & |y| < 2 \end{cases}$$

$$|w(t, 0)|_{1} \le \int_{0}^{t-1} \frac{1}{2} |u(s)|^{p-1} |u(s)|^{p-1}$$

$$|W(t,z)|_{\frac{1}{4}}$$

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$$|Z|_{\frac{1}{4}}$$

$$|Z$$

$$|W(t,z)|_{q} \leq C \qquad z - d(\frac{1}{2} - \frac{1}{4}) + 1$$

$$|Z|_{q} \leq C \qquad z - d(\frac{1}{2} - \frac{1}{4}) + 1$$

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$$|Z|_{q} \leq C \qquad$$

$$W(t,\tau) = i \int_{0}^{t-\tau} e^{i(t-\tau)\Delta} |u(t)|^{p-1} |u(t)| dt$$

$$= ie^{\Delta} \int_{0}^{t-\tau} e^{i(t-\tau-s)\Delta} |u(t)|^{p-1} |u(t)| dt$$

$$= i(t-\tau)\Delta |u(t-\tau)\Delta |u(t-\tau)\Delta |u(t)|^{p-1} |u(t)| dt$$

$$= |u(t-\tau)\Delta |u(t-\tau$$