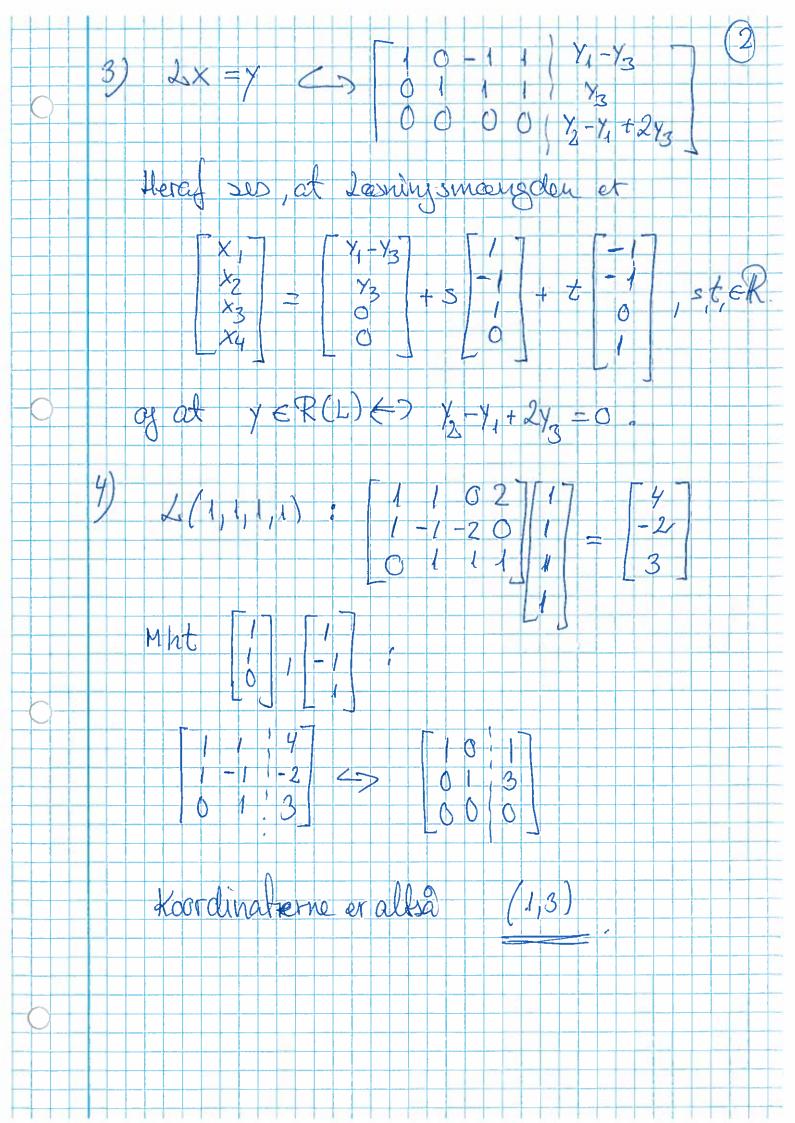
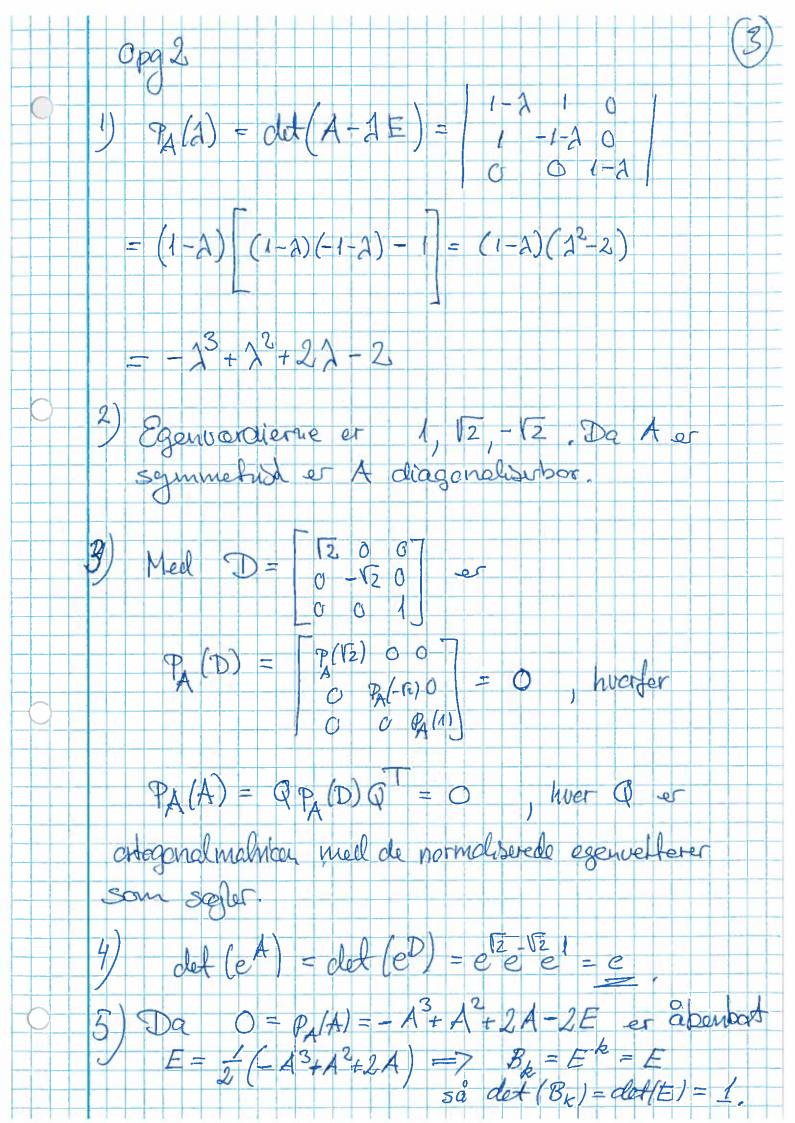
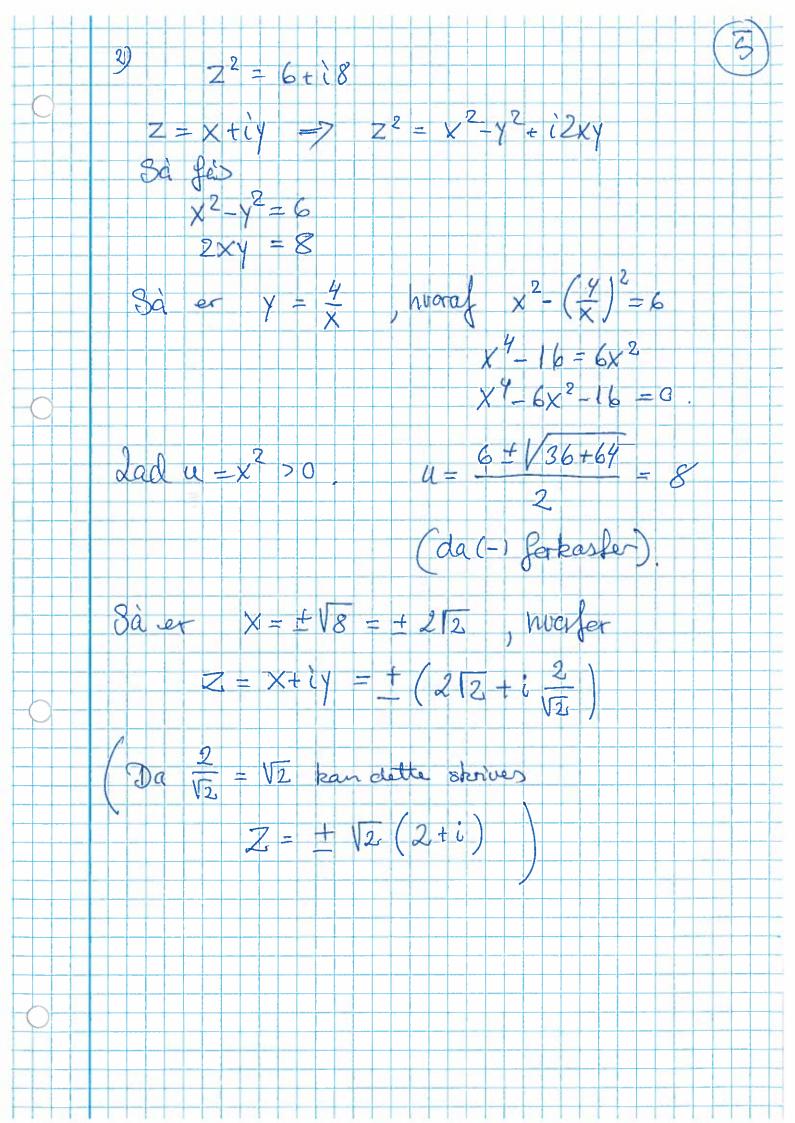
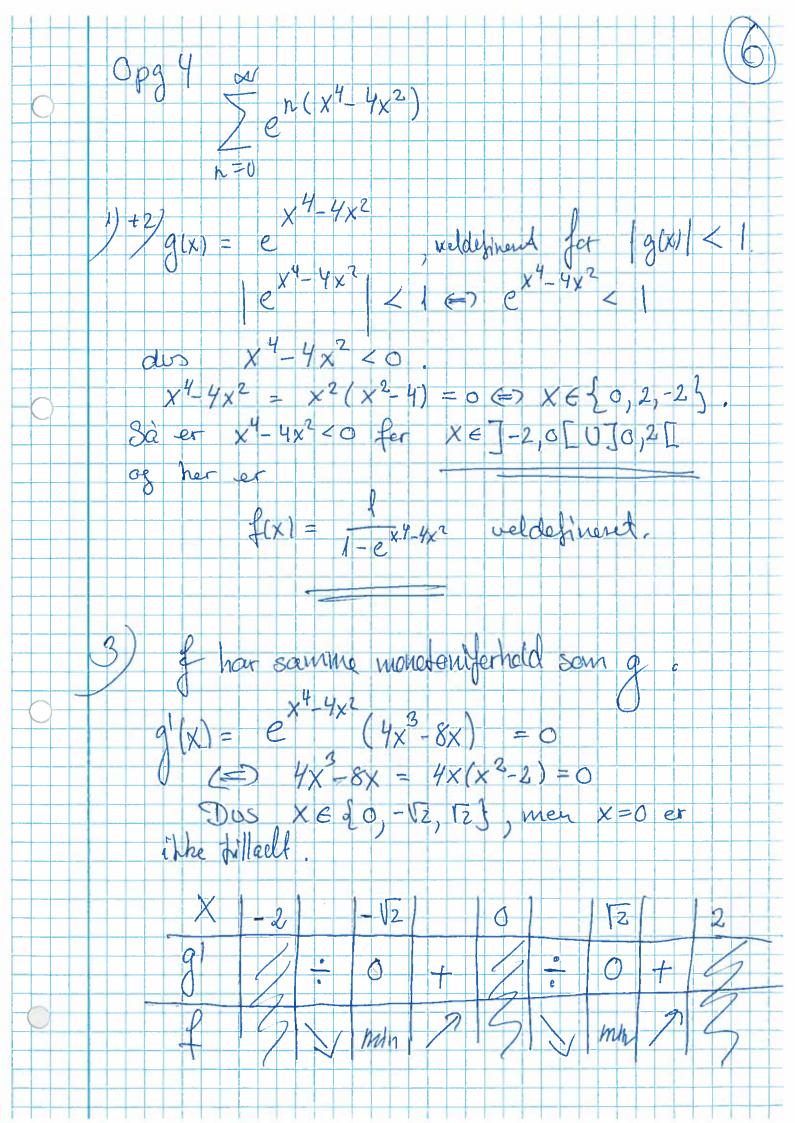
LM Januar 18 Opg 1 W(4): Lx = 0 Ine: X3 = 5 , x4 = t  $X_2 + X_3 + X_4 = 0 \iff X_2 = -X_3 - X_4 = -S - \xi$   $X_1 - X_3 + X_4 = 0 \iff X_1 = X_3 - X_4 = S - \xi$  $\mathcal{V}(\mathcal{L})$ :  $x_2 = s - 1/t t - 1/s, t \in \mathbb{R}$ Såer -1 -1 en basis for N(L) Da N(1) = 203 es 1 the ryelow. Fra spl ses et [1] [1] er er bans for R(L). Ler es suzeller, da din R(L)=2. Dim. soly.: 4-2-2





opg3 / Scos(ax) sin2 (bx)dx  $= \left( \frac{cax}{e} + e^{-iax} \right) \left( \frac{i2bx}{e} + e^{-i2bx} - 2 \right) dx$  $= -\frac{1}{8} \left( e^{i(a+2b)x} + e^{i(a-2b)x} + e^{i(-a+2b)x} + e^{i(-a+2b)x} \right)$ i (-a-2b) x -2 (e 'ax - 'ax) dx  $= -\frac{1}{8} \left( e^{i(a+2b)x} - i(a+2b)x + e^{i(a-2b)x} + e^{i(a-2b)x} + e^{i(a-2b)x} \right)$ -2(e'ax +e'ax) ax  $= -\frac{1}{4} \left( \cos(a+2b)x + \cos(a-2b)x - 2\cos(ax) \right) dx$ Huis a+26 +0, a-26 +0, a +0 fos  $-\frac{1}{4}\left(\frac{1}{a+2b}\sin(a+2b)x + \frac{1}{a-2b}\sin(a-2b)x - \frac{2}{a}\sin(ax)\right)$ Hvrs J. ex a+2b =0 er cco(a+2b)x = 1 og stanfunthener bliver så x for denne. analogt med de aonge.





-> ±2 24 f(x) -> 00 -> 0+ 24 f(x) -> 00 = ± 1/2 or f(±1/2) = 1-e-4 et ible injettiv da of har et (lok) nutr et indre punt i so definitions med.  $y \in Vu(f)$ 16 + 4 lu ( Y-) dosniner fer y