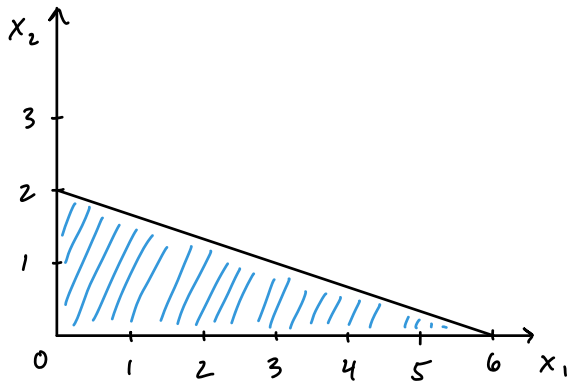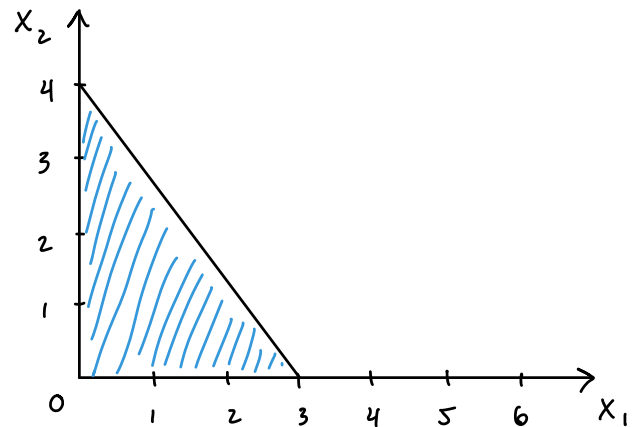Oppgave 1:

3.1-2

De skraverte områdene viser de ikke-negative løsningene som
oppfyller begrensningene.
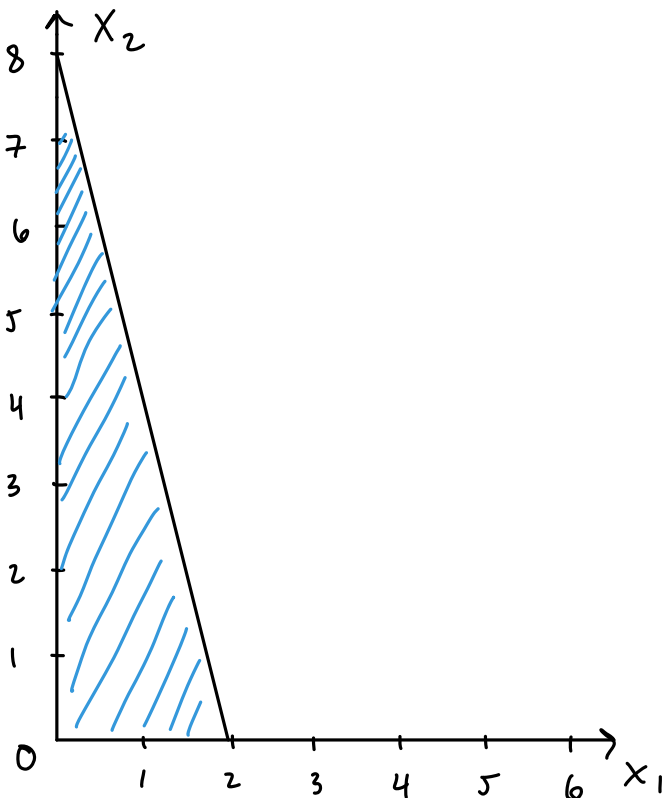
a)    $x_1 + 3x_2 \leq 6$
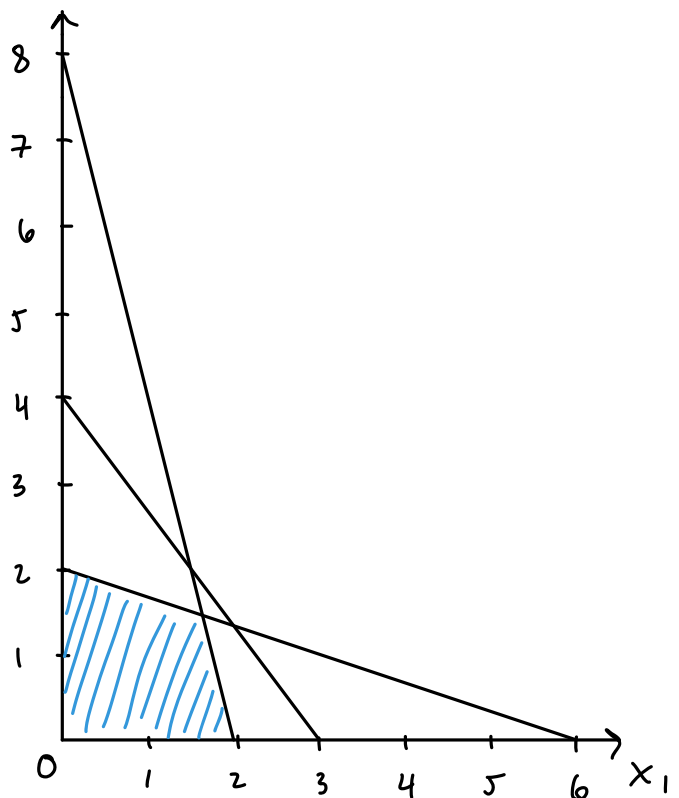


b)    $4x_1 + 3x_2 \leq 12$
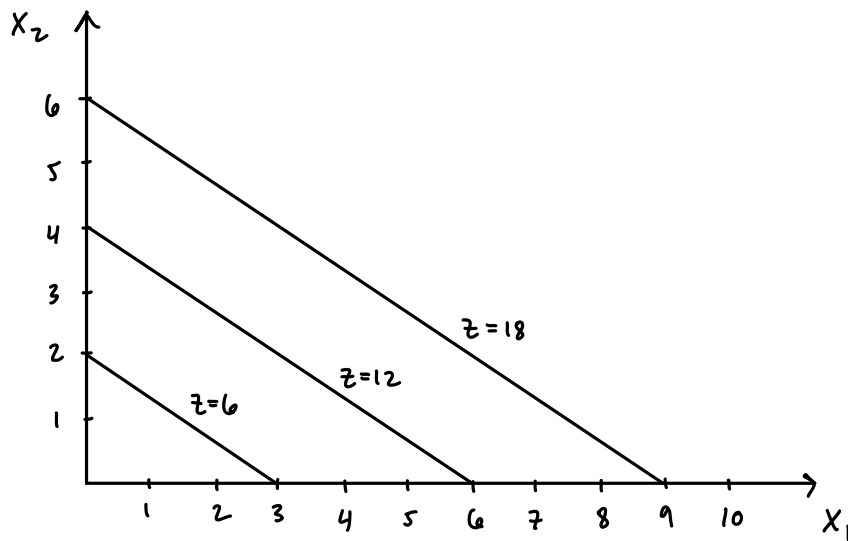


c)    $4x_1 + x_2 \leq 8$



d)    Alle restriksjoner.

3.1 - 3          $z = 2x_1 + 3x_2$

a)     Objective function lines for $z = 6$, $z = 12$, $z = 18$:



b)     Slope - intercept form of equations:

$z = 6$     :          $x_2 = -\frac{2}{3} x_1 + 2$

$z = 12$   :          $x_2 = -\frac{2}{3} x_1 + 4$

$z = 18$   :          $x_2 = -\frac{2}{3} x_1 + 6$

The three lines have the same slope, but intercept the $x_2$ - axis in different places.