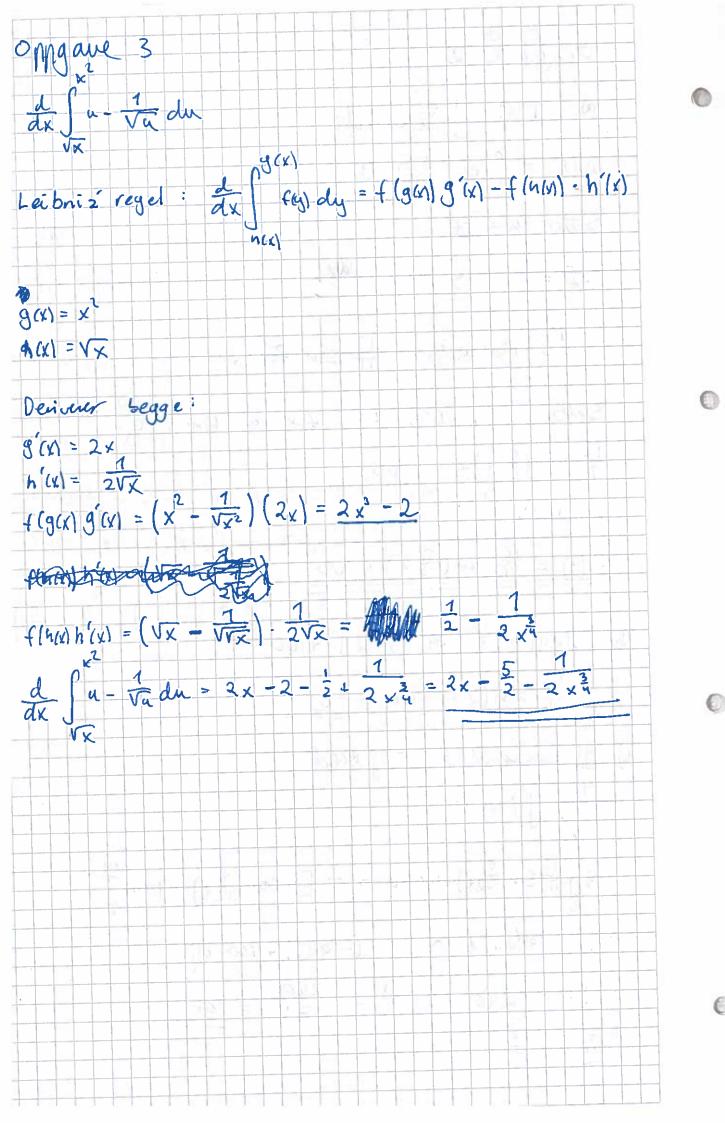


```
Oppgave 2
  a) B(+) = | d B(+) dt
  B(+) = ( cas ( 1/2t) olt
  Setter u= == ==
  du 17 => dt = 12dts
=> 12 (05 (w) du = 12 sin (72t) + (
  Setter inn B(0) = 100 for a finne C:
  12 Sin (12.0) + (=100
  C = 100
  B(+) = = Sin(=+) + 100
B) B(24) = 12 Sin( 12.24) +100
   = \frac{12}{\pi} Sin(217) +100 = 100
C) gjennomsnitt = 5-a \int BGDdt

24-0 \int B(t) dt

24 0

24 Cos (\frac{\pi}{12}t) + 100 dt = \frac{\pi}{24} [- \cos(\frac{\pi}{12}t) + 100 t]
  = \frac{1}{24} \left( -(8(2\pi) + 100 \cdot 24 - (-(8(6) + 100 \cdot 6)) \right)
  =\frac{1}{24}\left(-1+2400+1+0\right)=\frac{2400}{24}=100
```



Ei,