

**LF 4**

**Oppg ave 1:** a)  $i \sinh\left(\frac{\pi}{2}\right)$ ,  $\cosh(1)$ ,  $\cos(1) \cosh(2) - i \sin(1) \sinh(2)$ . b)  $i \sinh\left(\frac{\pi}{4}\right)$

**Oppg ave 2:** Skriv ut begge uttrykka, og samanlikn dei.

**Oppg ave 3:**  $z = -\frac{\pi}{2} + i \ln(100 \pm \sqrt{9999})$ ,  $z = -\frac{\pi}{2} + i \ln(1 \pm \sqrt{2})$

**Oppg ave 4:**  $\ln(5) + i\pi$ ,  $i$ ,  $\ln(5) - 0.644i$ .

**Oppg ave 5:**  $z = i$ ,  $z = -e^e$ ,  $z = e^4 (\cos(3) - i \sin(3))$

**Oppg ave 6:**  $e^{-\pi} e^{i2 \ln(2)}$ ,  $e^{-\frac{\pi}{4}}$ ,  $e^{3 \ln(3)} e^{i(3\pi - \ln(3))} = 27 e^{\pi} e^{i(3\pi - \ln(3))}$