

Matematisk analys del 1, 764G07. Provkod KTR1

Dugga 1

2020-09-16 kl 14.00 - 17.00

1. (a) $x = 1$.
(b) $x = 2$.
(c) $D_f = [1, 2]$, $V_f = [0, \frac{1}{2}]$.
2. (a) $-1 \leq x < 0$, $1 \leq x \leq 3$.
(b) $x = -1$.
3. (a) $x = \frac{\pi}{2} + \pi n$, $n \in \mathbb{Z}$, $x = \pm \frac{2}{3}\pi + 2\pi k$, $k \in \mathbb{Z}$.
(b) $-\frac{2}{3}\pi + 2\pi n < x < -\frac{\pi}{3} + 2\pi n$, $n \in \mathbb{Z}$.
4. (a) $|z| = \sqrt{2}$, $\arg z = \frac{\pi}{4}$.
(b) $z_1 = 1$, $z_2 = -1 + 2i$, $z_3 = -1 - 2i$.