

FACIT - ÖVNINGSTENTOR

Övningstenta 1

1 (a) oändligt många lösningar Ingår ej!

(b) $g'(2) = -\frac{39}{73}$

(c) $z_1 = 2 + 2i$, $z_2 = -2 - 2i$

(d) $(f^{-1})'(4) = \frac{1}{11}$

2. $A = (1, 0, 5)$, $B = (-2, \sqrt{13}, 3)$, origo
eller

$A = (1, 0, 5)$, $B = (-2, -\sqrt{13}, 3)$, origo

3. (a) $v = 75 \text{ km/h}$

Minsta kostnad = 1800 kr

(b) Beror på hur man uppskattar Lipschitz-konstanter.

4. (a) -1

(b) $\frac{1}{2}$

5. —

6. (a) F

(b) F

(c) F

(d) S

(e) F

(f) S

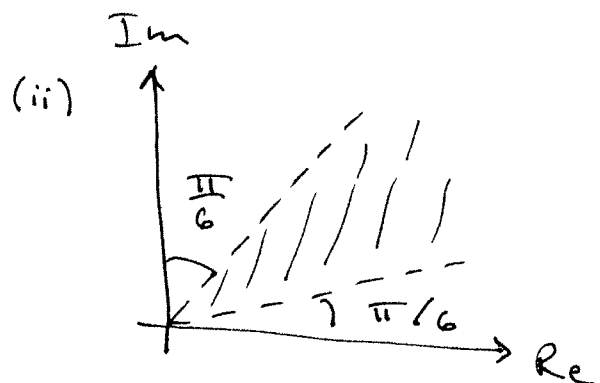
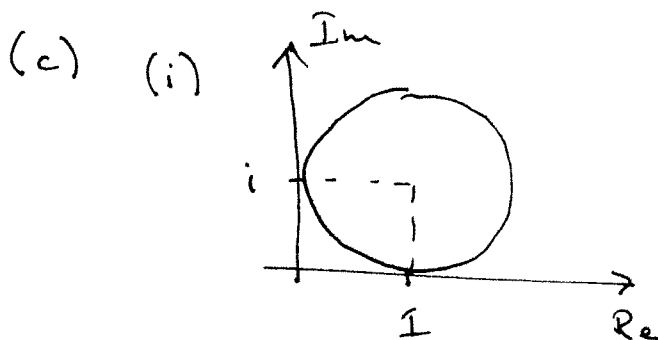
7. —

8. —

Övningsstenta 2

1. (a) $\frac{2-\pi}{8}$

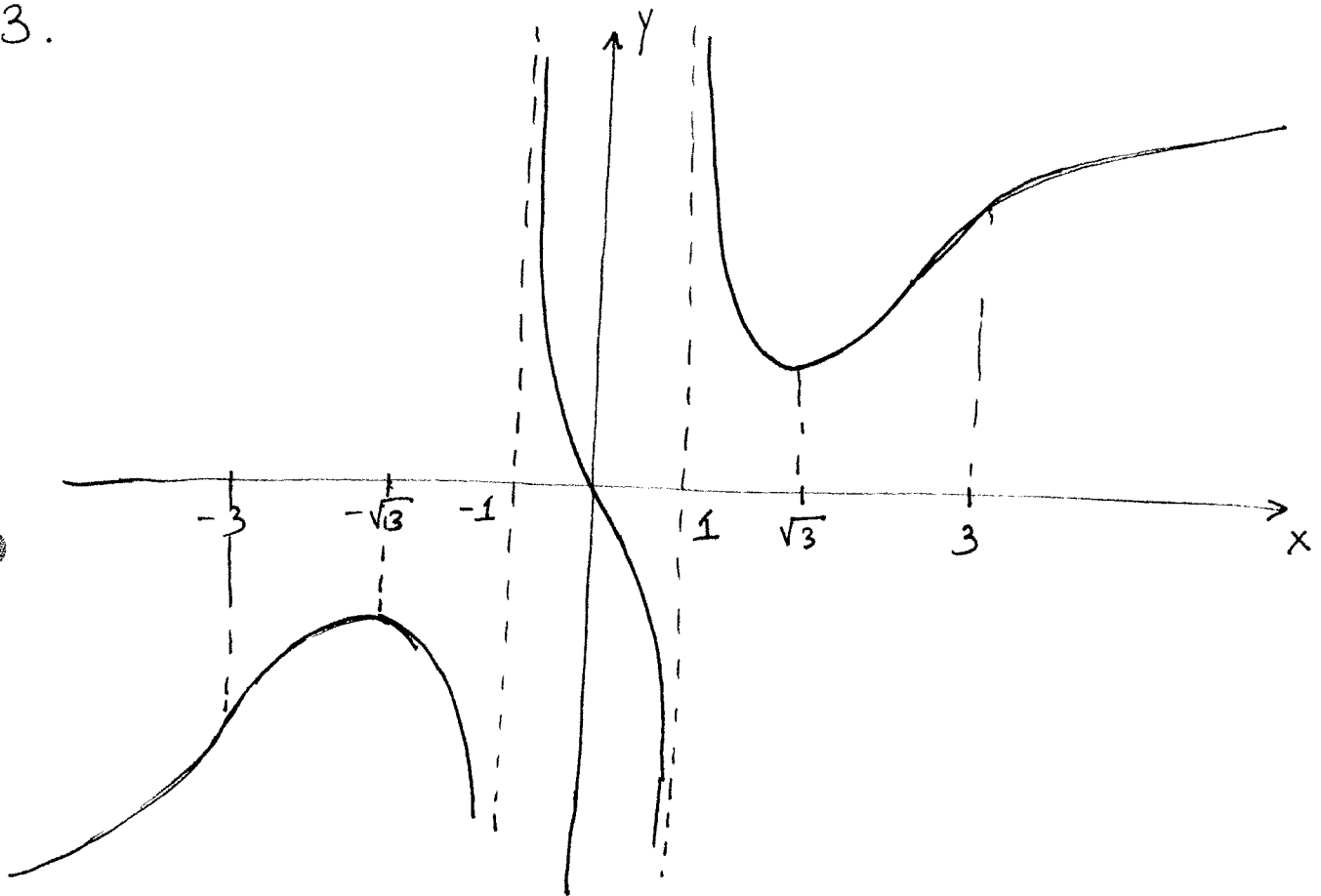
(b) $\frac{\sqrt{3}-1}{2\sqrt{2}}$



(d) $L_f = \frac{1}{2}$

2. Minsta avståndet $= \frac{13}{\sqrt{22}}$

3.



4. (a) $-\frac{3}{25}$

(b) $x + \frac{x^3}{3}$

5. —

6. (a) F

(b) F

(c) F

(d) F

(e) F

(f) F

7. —

8. —

Övnings tenta 3

1. (a) $(-\infty, 1) \cup (4, \infty)$

(b) $\Psi_m = \frac{13}{14} (1, 2, 3)$

(c) (i) -2

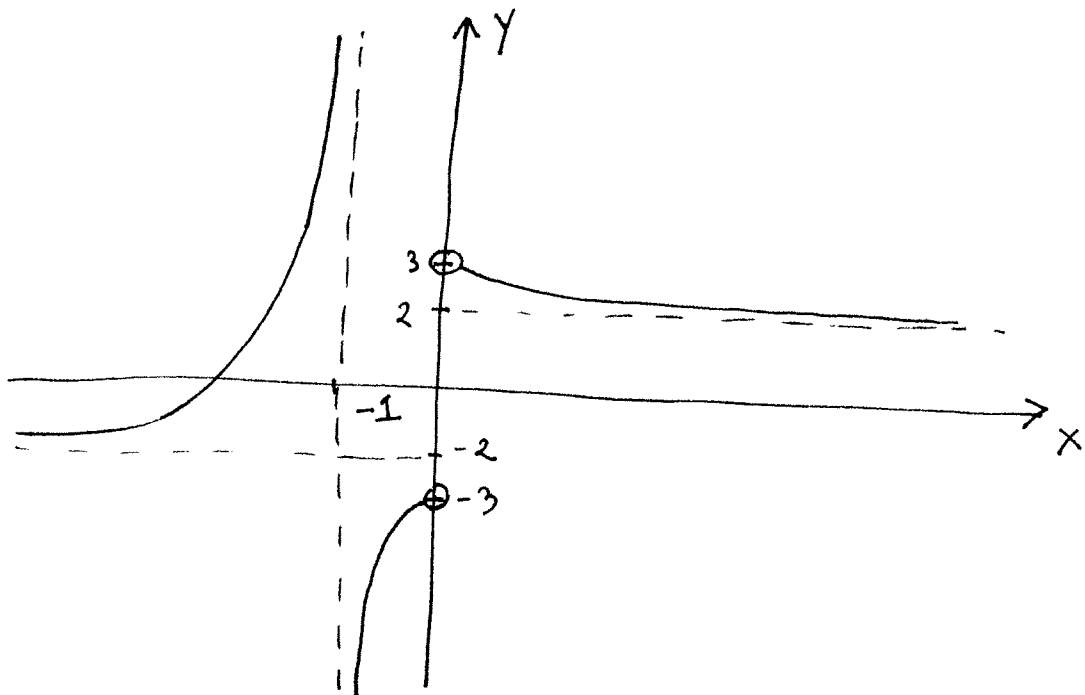
(ii) $\frac{1}{3}$

(d) $\frac{24}{25}$

2. (a) $r = 1.5 \text{ dm}$

(b) Beror på hur man uppskattar Lipschitz-konstanten.

3.



4. (a) $\underline{1}$

(b) $-\frac{3}{25}$

5. $\underline{\hspace{1cm}}$

6. (a) S

(b) F

(c) S

(d) S

(e) F

(f) F

7. $\underline{\hspace{1cm}}$

8. $\underline{\hspace{1cm}}$