1a) $3 - 2e^3$

b) $f'(x) = \frac{-9\sin(x)(5x+1)^4 - 180\cos(x)(5x+1)^3}{(5x+1)^8}$

c) 0

2a) $y = x - 1$

b) $y = 2\sqrt{e}(x - \frac{1}{2})$

3) $\frac{29}{6}$

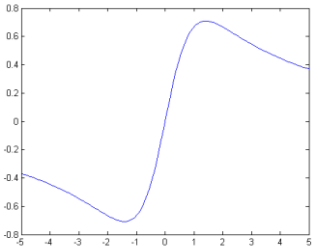
4a) Kostnad 8 345 327 kr
b) Radie 3,74 cm, Höjd 7,49 cm, Kostnad 5 277 900 kr. Vi sparar alltså 3 067 427 kr!

5a) $\sqrt{74}$

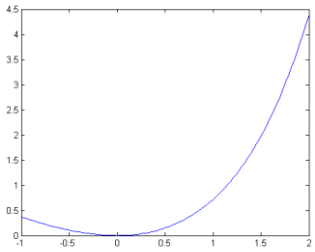
b) $-\frac{3}{5} + \frac{4}{5}i$

c) $z = -1 - i, \quad = 1 + 3i$

6) Lokalt min i $(-\sqrt{2}, -\frac{2}{3}\sqrt{2})$, lokalt max i $(\sqrt{2}, \frac{2}{3}\sqrt{2})$ samt lodrät asymptot i y=0.



7) Arean under kurvan då $1 < x < 3$ är $e^3 - e - 6$ a.e.



8) $c = 1$ ger $\lim_{x\to 2} \frac{x^2-4}{x^3+x^2-5x-2} = \frac{4}{11}$

9) Se kurslitteratur.

10) Se kurslitteratur.