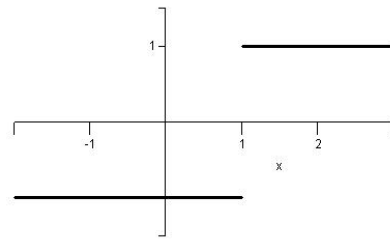
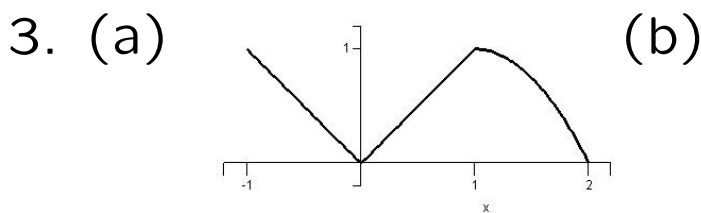


Fasit mandag 18. august

1. (a) $x = 1, x = 9$ (b) $x \geq 1$
(c) $1 \leq x \leq 9$
(d) $x \in (-\infty, -3/2) \cup (1/2, \infty)$

2. $y = -3x + 10$



4. (a) $V(A) = \frac{A^{3/2}}{6\sqrt{\pi}}$ (b) $A(x) = \frac{x^2}{4^2} + \frac{(100-x)^2}{4\pi}$

5. $x = -1, x = 0, x = \frac{1}{2}$

6. (a) $\sum_{r=4}^9 (-1)^r r^2$ (b) $\sum_{j=0}^7 (\frac{1}{2})^j$
(c) $\sum_{k=1}^n \sin \frac{k\pi}{n}$

7. Grunnsteg: $|x_1| = |x_1|$.

Induksjonssteg: $|x_1 + x_2 + \dots + x_{k+1}| = |(x_1 + \dots + x_k) + x_{k+1}| \leq |x_1 + \dots + x_k| + |x_{k+1}| \leq |x_1| + \dots + |x_k| + |x_{k+1}|$ Den første ulikheten følger av trekantulikheten, den andre fra induksjonshypotesen.