

... and represent it on the real line. The solution is the interval  $(-\infty, 3] \cup [5, \infty)$ .

b)  $x^2 - x^3 \leq 0$  (1)

c)  $\frac{x+1}{x-1} > \frac{x}{x-1}$  (2)

d)  $x^2 - 4 \geq 0$  (3)

e)  $2x + 5 < 3x - 4$  (4)

(1)

... and represent it on the real line. The solution is the interval  $(-\infty, 3] \cup [5, \infty)$ .

•  $\frac{x^2 - x}{x^2 - 4} \geq 0$

•  $\frac{2x + 2}{x} \leq \frac{4}{x + 1}$

•  $x^2 - 9 < 0$

•  $3|x - 1| + 2x > 3x - 2$

... and represent it on the real line. The solution is the interval  $(-\infty, 3] \cup [5, \infty)$ .

•  $y = 3x^2 - 1$

•  $u^2 = 3x^2 - 1$

•  $x - 2|y| = 4$

$$\begin{cases} 2x & \text{if } x < 1 \\ 6 - 2x & \text{if } x > 3 \end{cases}$$

Exercise 6. Decide whether the following functions are even, odd, or neither:

- $f(x) = 3x^2 - 1$
- $g(x) = x^3 + 2x$
- $h(x) = 3x^2 - 1 + x$
- $t(x) = x^3 + 2x - 1$

