

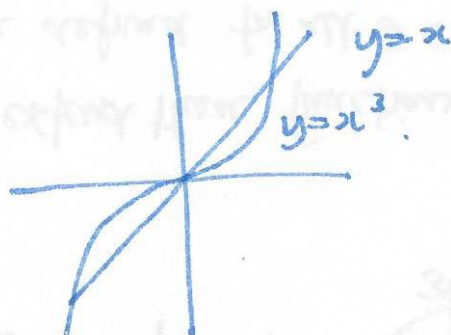
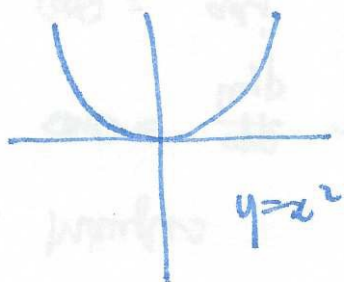
special functions

(11)

even : $f(-x) = f(x)$, i.e. symmetric in y-axis

odd : $f(-x) = -f(x)$, i.e. half turn symmetry

Examples



§2.6 Combining functions

suppose $f(x), g(x)$ are functions $f, g: \mathbb{R} \rightarrow \mathbb{R}$

sum $f+g$ $(f+g)(x) = f(x) + g(x)$

difference $(f-g)$ $(f-g)(x) = f(x) - g(x)$

product (fg) $(fg)(x) = f(x)g(x)$

quotient $(\frac{f}{g})$ $(\frac{f}{g})(x) = \frac{f(x)}{g(x)}$ and except when $g(x) = 0$.

domain
intersect

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Examples ~~sum~~ $x + \sqrt{x}$ $f(x) = \frac{1}{x-1}$ $g(x) = \sqrt{x}$

find : $f+g$ fg $\frac{f}{g}$

Composition of functions

$f: \mathbb{R} \rightarrow \mathbb{R}$ $g: \mathbb{R} \rightarrow \mathbb{R}$

$x \mapsto f(x) \mapsto g(f(x))$

$(g \circ f)(x) = g(f(x))$