

## Section 1.3

	$f(x) = x$	$f(x) = x^2$
Domain:	$(-\infty, \infty)$	$(-\infty, \infty)$
Range:	$(-\infty, \infty)$	$[0, \infty)$
Continuity:	continuous	continuous
Incr/Decr:	Incr. $(-\infty, \infty)$	decr. $(-\infty, 0)$ Incr $(0, \infty)$
Symmetry:	in origin (odd fnc)	In y axis (even fnc)
Bounded:	Not bounded	bounded below
Min/Max:	none	min @ $(0, 0)$
HA	none	none
VA	none	none
End Behavior:	$\lim_{x \rightarrow -\infty} f(x) = -\infty$ $\lim_{x \rightarrow \infty} f(x) = \infty$	$\lim_{x \rightarrow \pm\infty} f(x) = \infty$

	$f(x) = x^3$	$f(x) = \sqrt{x}$
D:	$(-\infty, \infty)$	$[0, \infty)$
R:	$(-\infty, \infty)$	$[0, \infty)$
C:	Continuous	continuous
Incr/Decr:	Incr $(-\infty, \infty)$	Incr $(0, \infty)$
Sym:	in origin (ODD fnc)	No sym
Bounded:	Not bounded	bounded below
Min/Max:	none	min $(0, 0)$
HA:	none	None
VA:	none	None
End Behavior:	$\lim_{x \rightarrow -\infty} f(x) = -\infty$ $\lim_{x \rightarrow \infty} f(x) = \infty$	$\lim_{x \rightarrow \infty} f(x) = \infty$

	$f(x) = e^x$	$f(x) = \ln x$
D:	$(-\infty, \infty)$	$(0, \infty)$
R:	$(0, \infty)$	$(-\infty, \infty)$
C:	continuous	continuous
Incr/Decr	Incr $(-\infty, \infty)$	Incr $(-\infty, \infty)$
Sym	none	none
Bounded	bounded below	not bounded
Min/Max	none	none
HA	$y = 0$	none
VA	none	$x = 0$
End Behavior	$\lim_{x \rightarrow -\infty} f(x) = 0$	$\lim_{x \rightarrow \infty} f(x) = \infty$

	$f(x) = \sin x$	$f(x) = \cos x$
D:	$(-\infty, \infty)$	$(-\infty, \infty)$
R:	$[-1, 1]$	$[-1, 1]$
C:	continuous	continuous
Incr/Decr:	does not apply	does not apply
Sym.	<del>none</del> none	in y axis
Bounded	above & below	above and below
min/max	Max@1 Min@-1	Max@1 Min@-
HA	NONE	None
VA		
end behavior	Periodic	Periodic