

REVIEW OUTLINE: CHS. 1, 2(1.2) Functions

Domain, Range
 Interval form, $\{ \}$ (set-builder form)
 $y = f(x-4)$, etc., Transforming Graphs

$f \circ g$
 $\circ$ composition

(1.3) Trig

Eval $\cot(\frac{\pi}{3})$, etc.
 Using right Δ s SOH-CAH-TOA
 Trig Ids.

Pythagorean, etc.

Handout

Ex $\sin(u+v)$

$\sin(2u)$, $\cos(2u)$ (3 versions)

$\sin^2 u$

Verifying Ids.

Solving Trig Eqs.

(2.1/2.3)

Properties of Limits

Finding Limits

1-, 2-sided limits

$\frac{0}{0}$ (Factor, Cancel; Rationalize)

DNE when?

Sandwich / Squeeze Thm.

Making, Interpreting Graphs

(2.2) ϵ - δ Def'n of $\lim_{x \rightarrow a} f(x) = L$

Know it! One-sided variations, also

Proving a limit statement (involving constant or linear $f(x)$)

(2.4) $\pm\infty$

Know when $\lim = \infty$ or $-\infty$ (Factoring, Signs)
Find $\lim_{x \rightarrow \infty} f(x)$ or $\lim_{x \rightarrow -\infty} f(x)$ ($\div x^{\text{max power in } P}$), find Horiz. Asympt. (HAS)

Know precise def'n's of $\lim_{x \rightarrow \infty} f(x) = L$, $\lim_{x \rightarrow -\infty} f(x) = L$

Sandwich / Squeeze Thm. (modified for $\lim_{x \rightarrow \pm\infty}$)

(2.5) Continuity

Def'n: at a pt., [closed] interval

Types of discontinuities

Where is f cont.?

Interval form

Apply continuity thms.

IVT