

PRECAL HONORS

Name _____

11.4 – LIMITS INVOLVING INFINITY

Evaluate each limit.

$$1. \lim_{x \rightarrow -2^-} \left(-\frac{2x}{x+2} \right)$$

$$2. \lim_{x \rightarrow -3^-} \left(\frac{2}{x^2 - 9} \right)$$

$$3. \lim_{x \rightarrow 1^+} \left(\frac{x}{x-1} \right)$$

$$4. \lim_{x \rightarrow -2^+} \left(\frac{x-2}{x^2 + 4x + 4} \right)$$

$$5. \lim_{x \rightarrow \infty} \left(-\frac{x^2}{x^2 + 4} \right)$$

$$6. \lim_{x \rightarrow \infty} \left(\frac{4}{x^2 + 2} \right)$$

$$7. \lim_{x \rightarrow -\infty} \left(\frac{3x}{x-3} \right)$$

$$8. \lim_{x \rightarrow -\infty} \left(\frac{2x}{x+2} \right)$$

$$9. \lim_{x \rightarrow \infty} \sqrt{\frac{4x^2 + 1}{4x^2 + 5}}$$

$$10. \lim_{x \rightarrow \infty} \left(\frac{x-2}{\sqrt{4x^2 + 2}} \right)$$

$$11. \lim_{x \rightarrow -\infty} \left(\frac{\sqrt{x^2 + 1}}{3x + 3} \right)$$

$$12. \lim_{x \rightarrow -\infty} \left(\frac{\sqrt{2x^2 + 2}}{3x + 1} \right)$$