

Calculus Worksheet: Limits of Functions (1)

Find the following limits (no calculator)

1. $\lim_{x \rightarrow +\infty} \frac{x^2 + 2x - 3}{-5x^2}$

2. $\lim_{x \rightarrow 0} \frac{x^2 - 16}{x^2 + 2x - 24}$

Find the following limits (calculator allowed)

3. $\lim_{x \rightarrow -\infty} \frac{x-1}{|x+2|}$

5. $\lim_{x \rightarrow -1} \frac{x^2 - 4x - 5}{|x+1|}$

4. $\lim_{x \rightarrow 2^-} \frac{x^2 + x - 6}{|x-2|}$

6. $\lim_{x \rightarrow -3^+} \sqrt[3]{x+3} \ln(x+3)$