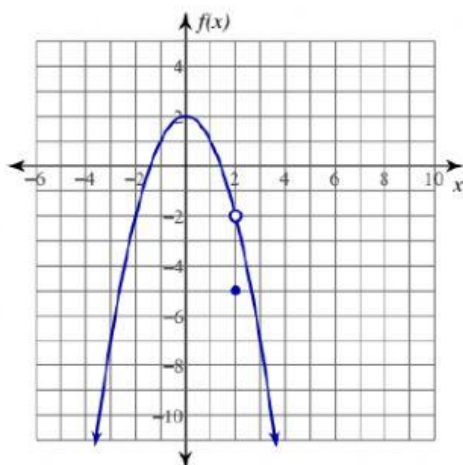


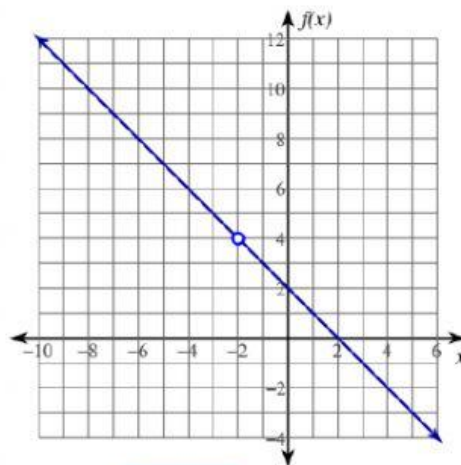
Предел функции

Вычислите пределы:

1) $\lim_{x \rightarrow 2} f(x), f(x) = \begin{cases} -x^2 + 2, & x \neq 2 \\ -5, & x = 2 \end{cases}$



2) $\lim_{x \rightarrow -2} -\frac{x^2 - 4}{x + 2}$



3) $\lim_{x \rightarrow 3} \frac{x^2 - 7x + 12}{x - 3}$

4) $\lim_{x \rightarrow -3} \frac{x + 3}{x^2 + 2x - 3}$

5) $\lim_{x \rightarrow 0} f(x), f(x) = \begin{cases} x + 1, & x \neq 0 \\ 2, & x = 0 \end{cases}$

6) $\lim_{x \rightarrow 3} f(x), f(x) = \begin{cases} 2 + \frac{x}{2}, & x \neq 3 \\ 2, & x = 3 \end{cases}$

7) $\lim_{x \rightarrow 1} -\frac{x^2 - 1}{x - 1}$

8) $\lim_{x \rightarrow 5} -\frac{x^2 - 5x}{x - 5}$

9) $\lim_{x \rightarrow 2} -\frac{x^2 - x - 2}{x - 2}$

10) $\lim_{x \rightarrow -5} \frac{x^2 + 3x - 10}{x + 5}$

$$11) \lim_{x \rightarrow 0} \frac{\frac{1}{-4+x} + \frac{1}{4}}{x}$$

$$12) \lim_{x \rightarrow -3} \frac{x}{\frac{1}{3+x} - \frac{1}{3}}$$

$$13) \lim_{x \rightarrow 5} \frac{x-5}{\sqrt{x+4}-3}$$

$$14) \lim_{x \rightarrow 3} \frac{\sqrt{x+6}-3}{x-3}$$