

CALCULUS
Indeterminate forms
NEW

NEW 0420-1. Compute

$$\lim_{x \rightarrow -3/2} \left[\frac{4x + 6}{4x^2 + 4x - 3} \right].$$

NEW 0420-2. Compute

$$\lim_{x \rightarrow 1} \left[\frac{x^4 - 1}{x^7 - 1} \right].$$

NEW 0420-3. Compute

$$\lim_{x \rightarrow 1} \left[\frac{4x + 4}{x^2 + 3x + 2} \right].$$

NEW 0420-4. Compute

$$\lim_{x \rightarrow 2} \left[\frac{5x - 7}{x^2 - x - 2} \right].$$

NEW 0420-5. Compute $\lim_{x \rightarrow 2} \left[\frac{e^{2x} - e^4}{e^{3x} - e^6} \right]$.

NEW 0420-6. Compute $\lim_{x \rightarrow \infty} \left[\frac{e^{-x}}{x^{-3}} \right]$.

NEW 0420-7. Compute $\lim_{x \rightarrow \infty} \left[\frac{e^{-x}}{x^{-9999}} \right]$.

NEW 0420-8. Compute $\lim_{x \rightarrow 0} \left[\frac{e^x - 1}{x^{101}} \right]$.

NEW 0420-9. Compute $\lim_{x \rightarrow -\infty} \left[x^{101} e^{-x} \right]$.

0420-10. Compute $\lim_{x \rightarrow 1} \left[\frac{\ln(1 + \ln x)}{\ln x} \right]$.

0420-11. Compute $\lim_{x \rightarrow 0} \frac{e^{4x} - 1 - 4x - 8x^2}{x^3}$.

0420-12. Compute $\lim_{x \rightarrow 0} \frac{e^{4x} - 1 - 4x - 8x^2}{x(\sin^2 x)}$.



0420-13. Compute $\lim_{x \rightarrow 0} \left[\frac{(\ln(1+x))^3}{x - \sin x} \right]$.

0420-14. Compute $\lim_{x \rightarrow -\infty} \sqrt{9x^2 - 4x + 2} + 3x$.

0420-15. Compute $\lim_{x \rightarrow 0} (1 - 7x + 2x^2 - x^5)^{1/x}$.

0420-16. Compute $\lim_{x \rightarrow 0^+} (2x + 7x^3 + 4x^7)^{-1/x}$.