1. Calculate the limit $\lim\limits_{x \to 3^+} \dfrac{27 - x^3}{x - 3}$

2. Calculate the limit $\lim\limits_{x \to 3^-} \dfrac{27 - x^3}{x - 3}$

3. Calculate the limit $\lim\limits_{x \to -1^-} \dfrac{x^2 - 1}{x + 1}$

4. Calculate the limit $\lim\limits_{x \to -1^-} \dfrac{x^2 - 1}{x + 1}$

5. Calculate the limit $\lim\limits_{x \to -2^-} \dfrac{3x^2 + 5x - 2}{4x^2 + 9x + 2}$

6. Calculate the limit $\lim\limits_{x \to -2^+} \dfrac{3x^2 + 5x - 2}{4x^2 + 9x + 2}$

7. Calculate the limit $\lim\limits_{x \to 3^-} \dfrac{x^2 - 4x + 3}{2x - 6}$

8. Calculate the limit $\lim\limits_{x \to 3^+} \dfrac{x^2 - 4x + 3}{2x - 6}$

9. Calculate the limit $\lim\limits_{x \to 0^+} \dfrac{x}{lnx}$

10. Calculate the limit $\lim\limits_{x \to +\infty} \dfrac{x}{lnx}$

11. Calculate the limit $\lim\limits_{x \to 1^+} \dfrac{x}{lnx}$

12. Calculate the limit $\lim\limits_{x \to 1^-} \dfrac{x}{lnx}$

13. Calculate the limit $\lim\limits_{x \to -\infty} \dfrac{x}{e^x}$

14. Calculate the limit $\lim\limits_{x \to +\infty} xe^{-x}$

15. Calculate the limit $\lim\limits_{x \to 0^+} \dfrac{1}{x^2} lnx$

16. Calculate the limit $\lim\limits_{x \to +\infty} \dfrac{1}{x^2} lnx$

17. Calculate the limit $\lim\limits_{x \to -\infty} x^2 e^x$

18. Calculate the limit $\lim\limits_{x \to +\infty} x^2 e^x$

19. Determine the domain, zeros, appropriate limits and asymptotes of the function $f(x) = lnx$.

20. Determine the domain, zeros, appropriate limits and asymptotes of the function $f(x) = e^x$.

21. Determine the domain, zeros, appropriate limits and asymptotes of the function $f(x) = e^{-x}$.

22. Determine the domain, zeros, appropriate limits and asymptotes of the function $f(x) = \frac{1}{x-2}$.

23. Determine the domain, zeros, appropriate limits and asymptotes of the function $f(x) = \frac{x+1}{x-2}$.

24. Determine the domain, zeros, appropriate limits and asymptotes of the function $f(x) = \frac{6}{1+e^{-x}}$.

25. Determine the domain, zeros, appropriate limits and asymptotes of the function $f(x) = \frac{x^2}{\ln x}$.

26. Determine the domain, zeros, appropriate limits and asymptotes of the function $f(x) = \frac{x^2}{e^x}$.

27. Determine the domain, zeros, appropriate limits and asymptotes of the function $f(x) = \frac{e^x}{x}$.

28. Determine the domain, zeros, appropriate limits and asymptotes of the function $f(x) = \frac{\ln x}{x}$.