

# Limits pt.1

## Limieten

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

$$2. \lim_{x \rightarrow 0} \frac{\pi}{4}$$

$$3. \lim_{x \rightarrow -\infty} \frac{-x^2 + 6x + 8}{10x^2 + 10^6}$$

$$4. \lim_{x \rightarrow 3} \frac{\sqrt{x} - \sqrt{3}}{x - 3}$$

$$5. \lim_{h \rightarrow 4} \frac{2x^2h - 2xh + 25h^2}{\sqrt{h} - 5}$$

$$6. \lim_{h \rightarrow 0} \frac{\sqrt{2h+4} - 2}{h}$$

$$7. \lim_{x \rightarrow 3^-} \frac{(2x+1)^3(x-5)^4}{(x-3)^3\sqrt{9-x}}$$

$$8. \lim_{x \rightarrow 0} \frac{x^2 + 2x}{x^3 - 3x}$$

$$9. \lim_{x \rightarrow \infty} \frac{2x^2 + 6x + 3}{8 + 3x - 5x^2}$$

$$10. \lim_{x \rightarrow 0} \frac{\sqrt{3-x} - \sqrt{3}}{x}$$

$$11. \lim_{x \rightarrow 2} \frac{x+3}{x-4}$$

$$12. \lim_{x \rightarrow 1} \frac{(x+2)(x-1)}{x^2 - 6x + 5}$$

$$13. \lim_{x \rightarrow -\infty} \frac{3x^3 + 5x^2 - 7}{5x - 4x^3}$$

$$14. \lim_{h \rightarrow 0} \frac{\sqrt{5+h} - \sqrt{5}}{h}$$

$$15. \lim_{x \rightarrow 3^-} \frac{x^2|x-3|}{x-3}$$

$$16. \lim_{x \rightarrow 2} \frac{x^2 + 3x - 10}{x - 2}$$

$$17. \lim_{x \rightarrow \infty} e^{-x} + 1$$

$$18. \lim_{x \rightarrow \infty} \frac{2x^2 - 3x + 7}{x^3 - 3}$$

$$19. \lim_{x \rightarrow 2} \frac{x^2 - 3x + 2}{x^2 + x - 6}$$

$$20. \lim_{x \rightarrow -3^-} \frac{x-3}{x+3}$$

$$21. \lim_{x \rightarrow \infty} \frac{x - x^2}{x + x^2}$$

$$22. \lim_{x \rightarrow 0} \frac{x - x^2}{x + x^2}$$

$$23. \lim_{x \rightarrow -7} \frac{x^2 + 5x - 14}{x + 7}$$

$$24. \lim_{x \rightarrow \infty} \frac{12 + 2^x}{6 - 2^x}$$