

$$10. \lim_{x \rightarrow 1} \frac{x-1}{\sqrt{x}-1} = 2.$$

$$13. \lim_{x \rightarrow 2} \log x = \log 2.$$

$$16. \lim_{x \rightarrow 3} \frac{5}{x-3} = \infty.$$

$$19. \lim_{x \rightarrow 0} \frac{2x-5}{x^2} = -\infty.$$

$$22. \lim_{x \rightarrow \infty} \frac{1}{x} = 0.$$

$$25. \lim_{x \rightarrow -\infty} \sqrt{\frac{1-x}{x^2}} = 0.$$

$$28. \lim_{x \rightarrow -\infty} \sqrt[3]{2-x} = +\infty.$$

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

$$14. \lim_{x \rightarrow 2} 10^x = 100.$$

$$17. \lim_{x \rightarrow 4} \frac{1}{\sqrt{x}-2} = \infty.$$

$$20. \lim_{x \rightarrow -1} \frac{x}{(x+1)^2} = -\infty.$$

$$23. \lim_{x \rightarrow \infty} \frac{2x+3}{1+x} = 2.$$

$$26. \lim_{x \rightarrow +\infty} \sqrt{1+\frac{4}{x}} = 1.$$

$$29. \lim_{x \rightarrow +\infty} \log(x^2-3) = +\infty.$$

$$12. \lim_{x \rightarrow 1} \frac{x^2-7x+6}{x-1} = -5.$$

$$15. \lim_{x \rightarrow 1} \frac{x^3-3x^2-x+3}{x^2-1} = -2.$$

$$18. \lim_{x \rightarrow 1} \frac{2}{(x-1)^2} = +\infty.$$

$$21. \lim_{x \rightarrow 3} \frac{1+x^2}{(x-3)^2} = +\infty.$$

$$24. \lim_{x \rightarrow \infty} \frac{2x^2-1}{5x^2+3} = \frac{2}{5}.$$

$$27. \lim_{x \rightarrow +\infty} \frac{x^2-2}{x} = +\infty.$$

$$30. \lim_{x \rightarrow \infty} (x^2+4) = +\infty.$$

*Servendosi della definizione di limite, dimostrare che si ha:*

*Servendosi della definizione di limite, provare che risulta:*

$$31. \lim_{x \rightarrow \frac{\pi}{6}} \operatorname{sen} x = \frac{1}{2}.$$

$$33. \lim_{x \rightarrow 1} (x\sqrt{x}-1) = 0.$$

$$32. \lim_{x \rightarrow \infty} \operatorname{arctg} x = \frac{\pi}{2}.$$

$$34. \lim_{x \rightarrow +\infty} e^{-x} = 0.$$