

Limiti in forma indeterminata con funzioni goniometriche

Con l'utilizzo dei limiti notevoli

Studiare i seguenti limiti

$$1) \lim_{x \rightarrow 0} \frac{\tan(5x)}{x}$$

$$2) \lim_{x \rightarrow 0} \frac{\text{sen}^2(x)}{x^3}$$

R:5; $\cancel{\neq}$

$$3) \lim_{x \rightarrow 0} \frac{\text{sen}(2x) + 3 \tan(4x)}{6x}$$

$$4) \lim_{x \rightarrow 1} \frac{\text{sen}(x^2 - 1)}{x - 1}$$

R: $\frac{7}{3}$; 2

$$5) \lim_{x \rightarrow 0} \frac{\text{sen}(2x) - \text{sen}x}{x}$$

$$6) \lim_{x \rightarrow 0} \frac{\text{sen}(2x) - 2\text{sen}x}{x^3}$$

R:1;-1

$$7) \lim_{x \rightarrow 0} \frac{\text{sen}(5x) - \text{sen}(2x)}{5x + \tan(2x)}$$

$$8) \lim_{x \rightarrow \frac{\pi}{4}} \frac{\text{sen}(2x) - 1}{\cos(x) - \text{sen}(x)}$$

R: $\frac{3}{7}$; 0