Goniometrické

POM. VZORCOV

$$\sin^2 x + \cos^2 x = 1$$

$$\sin^2 x = 1 - \cos^2 x$$

$$\cos^2 x = 1 - \sin^2 x$$

$$\sin 2x = 2 . \sin x . \cos x$$

$$\cos 2x = \cos^2 x - \sin^2 x$$

$$\lim_{x \to \frac{\pi}{2}} \frac{\boxed{\cos 2x} + \boxed{\sin^2 x}}{1 - \sin x} = \lim_{x \to \frac{\pi}{2}} \frac{\cancel{\cos^2 x} - \sin^2 x + 1 - \cancel{\cos^2 x}}{1 - \sin x} =$$

$A^2 - B^2$ VZOREC $(A - B) . (A + B)$

$$= \lim_{x \to \frac{\pi}{2}} \frac{1 - \sin^2 x}{1 - \sin x} = \lim_{x \to \frac{\pi}{2}} \frac{\cancel{(1 - \sin x)}(1 + \sin x)}{\cancel{1 - \sin x}} = \lim_{x \to \frac{\pi}{2}} 1 + \sin x =$$

VYKRÁTIM DOSADÍM

$$= 1 + \sin \frac{\pi}{2} = 1 + 1 = 2$$

KALKULAČKA

VYBERIEM PRED ZÁTVORKU

$$\lim_{x \to \frac{3}{2}\pi} \frac{\boxed{\sin 2x} + 2 \cos x}{\boxed{\cos^2 x}} = \lim_{x \to \frac{3}{2}\pi} \frac{2 \sin x . \cos x + 2 \cos x}{1 - \sin^2 x} =$$

VZOREC $A^2 - B^2 = (A-B).(A+B)$

$$= \lim_{x \to \frac{3}{2}\pi} \frac{2 \cos x \cancel{(\sin x + 1)}}{(1 - \sin x)\cancel{(1 + \sin x)}} = \lim_{x \to \frac{3}{2}\pi} \frac{2 \cos x}{1 - \sin x} = \frac{2 . \cos \frac{3}{2}\pi}{1 - \sin \frac{3}{2}\pi} = \frac{2.0}{2} = 0$$

$= (A - B) . (A + B)$

VYKRÁTIM

DOSADÍM