$8\cos^4 x = 11\cos 2x - 1$

$8[(1+\cos 2x)/2]^2=11\cos 2x-1$

$8*(1+2\cos 2x+\cos^2 2x)/4-11\cos 2x+1=0$

$2+4\cos 2x+2\cos^2 2x-11\cos 2x+1=0$

$3-7\cos 2x+2\cos^2 2x=0$

$\cos 2x=t$

$2t^2-7t+3=0$

$D=49-26=5^2$

$t=(7+5)/4=3$

$t=2/4=1/2$

$\cos 2x=3$ - не имеет сымысла

$\cos 2x=1/2$

$2x=\pm P/3+2Pk$

$x=\pm P/6+Pk$

$\sin^4 x+\cos^4 x=\sin x\cos x$

$\sin^4 x+2(\sin^2 x*\cos^2 x)+\cos^4 x-2(\sin^2 x*\cos^2 x)=\sin x\cos x$

$(\sin^2 x+\cos^2 x)^2-2(\sin^2 x*\cos^2 x)=\sin x\cos x$

$1-2(\sin^2 x*\cos^2 x)=\sin x\cos x$

$\sin x\cos x=t$

$2t^2+t-1=0$

$D=1+8=9$

$t=(-1+3)/4=1/2$

$t=-1$ $\sin x\cos x=-1$ - невозможно

$\sin x\cos x=1/2$

$2\sin x\cos x=1$

$\sin 2x=1$

$2x=P/2+2Pk$

$x=P/4+Pk$

Otvet: $x=P/4+Pk$