2.75
1

$n=1$ $\quad \cos x + \cos 3x = \frac{\sin 2x}{\sin x}$ ✓

$n=k+1$ $\quad \underbrace{\cos x + \cos 3x + \ldots + \cos kx}_{\text{נניח נכונות עבור}} + \cos(k+1)x + \cos(k+3)x \overset{?}{=} \frac{\sin(k+4)x}{\sin x}$

$$\frac{\sin(k+1)x}{\sin x} \cdot \cos x + \cos(k+3)x \overset{?}{=}$$

$$\frac{\sin(k+1)x \cos x + \cos(k+3)x \sin x}{\sin x} = \frac{\sin[(k+3)x + x]}{\sin x} = \frac{\sin(k+4)x}{\sin x}$$