$6\sin(20x)+1=1$ 112

$\sin(20x)=\frac{1-1}{6}$ 25 / 10 / 208

$\sin(20x)=0=90°$

$\pi-\alpha=90°$ $\frac{\pi}{2}$

$x=\frac{\frac{\pi}{2}+N\cdot 2\pi}{20}$

$x=\frac{2\pi}{40}+N\cdot\frac{2\pi}{20}$

$x=\frac{\pi}{20}+N\cdot\frac{\pi}{10}$ ✓

$\sin(\theta)=\sin(\pi-\theta)$

$\sin(\theta)=\sin(\theta+2\pi)$

$20x=0+N\cdot 2\pi$

$x=\frac{N\cdot 2\pi}{20}=N\cdot\frac{\pi}{10}$ ✓

$x=\frac{\pi+N\cdot 2\pi}{20}=\frac{\pi}{20}+N\cdot\frac{\pi}{10}$

$14\sin(20x)-3=2$ 113

$\sin(20x)=\frac{5}{14}$

$\sin^{-1}\left(\frac{5}{14}\right)=0,3652072221$

$\pi-\alpha=2,7763878343$

$x=\frac{\alpha+N\cdot 2\pi}{20}=\frac{\alpha}{20}+N\cdot\frac{\pi}{10}$

$x=0.01826036+N\cdot\frac{\pi}{10}$

$x=\frac{\beta+N\cdot 2\pi}{20}=\frac{\beta}{20}+N\cdot\frac{\pi}{10}$

$x=0.1388192+N\cdot\frac{\pi}{10}$ ✓

$3\sin(3x)-1=3$ 114

$\sin(3x)=\frac{4}{3}$

$\sin^{-1}\left(\frac{4}{3}\right)=0.9273295217$

$\pi-\alpha=2.214297444$

$x=\frac{\alpha}{3}+N\cdot\frac{2\pi}{3}$

$x=0.309098406+N\cdot\frac{2\pi}{3}$

$x=17,7100341°+N\cdot 120°$

$x=\frac{\beta+2\pi\cdot N}{3}=\frac{\beta}{3}+N\cdot\frac{2}{3}\pi$

$x=0.7382999145+N\cdot\frac{2}{3}\pi$

$x=42.28996594°+N\cdot 120°$ ✓

$18\cos(10x)+2=10$ 115

$\cos(10x)=\frac{8}{18}$

$\cos^{-1}\left(\frac{8}{18}\right)=1.110242274$

~~$\pi-\alpha=2,031735032$~~

~~$2\pi-\alpha=5,172394297$~~

$x=\frac{\alpha}{10}+N\cdot\frac{2\pi}{10}$ $x=\frac{\alpha}{10}+N\cdot\frac{\pi}{5}$

$x=0.1110242234+N\cdot\frac{\pi}{5}$

~~$x=\frac{\beta}{10}+N\cdot\frac{2\pi}{10}=\frac{\beta}{10}+N\cdot\frac{\pi}{5}$~~

~~$x=0.2031735032+N\cdot\frac{\pi}{5}$~~

$x=\frac{\beta}{10}+N\cdot\frac{2\pi}{10}=\frac{\beta}{10}+N\cdot\frac{\pi}{5}$

~~$x=-0.5172394297+N\cdot\frac{\pi}{5}$~~

$x=-\frac{\alpha}{10}+N\cdot\frac{\pi}{5}$ ✓

$\sin(18x)+11=2$ 116 (10/20/16)

$\sin(18x)=\frac{2-11}{9}$

$\sin^{-1}\left(\frac{-8}{9}\right)=-1,0949148$

$\pi-\alpha=4,23850673$

$-\pi+\alpha=-4,9385067$

$2\pi-\alpha=7,37780958$

$-2\pi+\alpha=-5,188271223$

$-\pi+\alpha=-2,046677758$

$\alpha=-62,7329555°$

$\beta=-117,2670444°$

$x=\frac{\alpha}{18}+N\cdot\frac{2\pi}{18}=\frac{\alpha}{18}+N\cdot\frac{\pi}{9}$

$5\sin\left(\frac{-8}{9}\right)=-1=-\frac{\pi}{2}$

$\pi+(\alpha)=\frac{\pi}{2}$

$-\pi-(\alpha)=-\frac{\pi}{2}$

$x=\frac{-\frac{\pi}{2}}{18}+N\cdot\frac{2\pi}{18}$

$x=\frac{\pi}{36}+N\cdot\frac{\pi}{9}=\alpha$

$x=\frac{\pi}{2}+N\cdot\frac{2\pi}{18}$

$x=\frac{\pi}{30}+N\cdot\frac{2\pi}{9}=\beta$ ✓

$55\sin(3x)-1=3$ 117

$\sin(3x)=\frac{3+1}{5}$

$\sin^{-1}\left(\frac{4}{5}\right)=0.9273295218$

$\pi-\alpha=2.214297444$

$x=53.1301024°$

$\beta=126.8697976°$

$x=\frac{\alpha}{3}+N\cdot\frac{360°}{3}$

$x=17.71003411°+N\cdot 120°$

$x=\frac{\beta}{3}+N\cdot\frac{360}{3}$ ✓

$x=42.28996594°+N\cdot 120°$

$16\cos(15x)+8=2$ 118

$\cos(15x)=\frac{2-8}{16}$

$\cos^{-1}\left(\frac{-6}{16}\right)=-0.375$

$\pi-(\alpha)=-2.766592653$

$\frac{\alpha}{15}+N\cdot\frac{2\pi}{15}=x$

$x=0.025+N\cdot\frac{2\pi}{15}$

$x=\frac{\beta}{15}+N\cdot\frac{2\pi}{15}$

~~$x=0.1844395510+N\cdot\frac{2\pi}{15}$~~

$x=10.1844395510+N\cdot\frac{2\pi}{15}$

~~$\frac{\alpha}{16}+N\cdot\frac{2\pi}{16}$~~

$x=0.0234375+N\cdot\frac{\pi}{8}$

$x=\frac{\beta}{16}+N\cdot\frac{2\pi}{16}$

$x=-0.17291204+N\cdot\frac{\pi}{8}$

~~$\theta=-1-\alpha$~~

~~$\theta=375$~~

~~$x=\frac{\theta}{16}+N\cdot\frac{2\pi}{16}=0.02344\frac{\pi}{6}$~~

~~$\frac{-375}{16}=\frac{\theta}{16}=\frac{375}{15}$~~

$\cos^{-1}(-6\div 16)=1.955919310$

$\pi-(\alpha)=1.186399755$

$\alpha=-21.48591234°$

$\beta=-158.5408766°$

$-\alpha=21.48591234°$

$\frac{\alpha}{10}+N\cdot\frac{2\pi}{10}=x$ ✓

$x=0.1303462207+N\cdot\frac{2\pi}{10}$

$30\cos(30x)+14=16$ 118

$\cos(30x)=\frac{16-14}{30}$

$\cos^{-1}\left(\frac{30}{30}\right)=\cos^{-1}(-1)=\pi$

$\pi-\pi=0$

$\alpha=180$

$\theta=-180$

$x=\frac{\pi}{30}+N\cdot\frac{2\pi}{30}=\frac{\pi}{30}+N\cdot\frac{\pi}{15}$

~~$x=\frac{\alpha}{15}+N\cdot\frac{\pi}{15}=\frac{\pi}{15}$~~

$x=\frac{\alpha}{15}+N\cdot\frac{2\pi}{15}=x$ ✓

$65\sin(20x)+1=1$ 119

$\sin(20x)=\frac{1-1}{6}$

$\sin^{-1}(0)=0$

$\pi-0=\pi$

$x=\frac{0}{20}+N\cdot\frac{2\pi}{20}=N\cdot\frac{\pi}{10}$

$x=\frac{\pi}{20}+N\cdot\frac{2\pi}{20}=\frac{\pi}{20}+N\cdot\frac{\pi}{10}$

$2\sin(4x)+6=5$ 120

$\sin(4x)=\frac{5-6}{2}$

$\sin^{-1}\left(\frac{-1}{2}\right)=-0.5235987756$

$\pi+(\alpha)=2.617993878$

$-\pi-(\alpha)=-2.617993878$

$\alpha=-30°$

$\beta=150°$

$\beta=-150$

$x=\frac{\alpha}{4}+N\cdot\frac{360}{4}$

$x=-0.1308996944+N\cdot 90°$

$x=-7.5°+N\cdot 90°$

$x=\frac{\beta}{4}+N\cdot\frac{360}{4}$ ✓

$x=0.6544984694+N\cdot 90°$

$x=37.5°+N\cdot 90°$

$4\cos(10x)+2=2$ 121

$\cos(10x)=\frac{2-2}{4}$

$\cos(10x)=\frac{0}{4}$

$\cos^{-1}(0)=\frac{\pi}{2}$

$\pi-\frac{\pi}{2}=\frac{\pi}{2}$

$\alpha=90°$ $\beta=90°$

$x=\frac{90}{10}+N\cdot\frac{360}{10}$

$x=9°+N\cdot 36°$ ✓

$5\cos(6x)+6=9$ 122

$\cos(6x)=\frac{9-6}{5}$

$\cos^{-1}\left(\frac{3}{5}\right)=0,9272952180$

$\pi-\alpha=2,214297444$

$\alpha=53.1301024$

$\beta=126.8697976$

$x=\frac{\alpha}{6}+N\cdot\frac{360}{6}$

$\alpha=0.1547949203$

$x=\pm 8.855012266°+N\cdot 60°$

$x=$ ✓

$\tan(75°)=$

$\tan(135°)-\tan(60°)$

$\frac{3\pi}{12}-\frac{2\pi}{12}$

$45°-60°$

$1-\sqrt{3}$

-15 ✗

$\tan(30)+\tan(45)$

$\frac{\sqrt{3}}{3}+1$

$1-\left(\frac{\sqrt{3}}{3}\right)1$

$=\frac{\frac{\sqrt{3}}{3}+1}{\frac{\sqrt{3}}{3}-1}$

~~$\tan(75°)=$~~ $=\frac{\sqrt{3}+3}{\sqrt{3}-3}$ ✓

$6\sin(3x)+1=7$ 124

$\sin(3x)=\frac{7-1}{6}$

$\sin^{-1}(3x)=\frac{6}{6}=1$

$\sin^{-1}(1)=\frac{\pi}{2}$

$\pi-\frac{\pi}{2}=\frac{\pi}{2}$

$\alpha=90-\alpha=90$

$x=\frac{\alpha}{3}+N\cdot 360$ ✓

$x=30°+N\cdot 120°$

$H(t)=5\cos\left(\frac{2\pi}{3}t\right)+33$ 125

$35=5\cos\left(\frac{2\pi}{3}t\right)+33$

$\frac{-15}{5}=\cos\left(\frac{2\pi}{3}t\right)$

$\cos^{-1}\left(\frac{-15}{25}\right)=1.2661036$

$\pi-\alpha=1.266103673$

$2\pi-\alpha=4.416969633$

~~$\alpha=\frac{3}{2\pi}-35=0.9398$~~

$-35=5\cos\left(\frac{2\pi}{3}t\right)-35.5$

$\frac{0.5}{5}=\cos\left(\frac{2\pi}{3}t\right)$

$\cos^{-1}(0.2)=1.147062891$

$\pi-\alpha=1.670963751$ ✓

$\alpha=\frac{3}{2\pi}=0.7021735794$

$\cos(x)=0.2$ 126

$(-90°, 450°)$

$\cos^{-1}(0.2)=1,369438411$

$78.46=\alpha$

$-\alpha=-78.46$

$\theta=281.54$

$2\pi-\alpha=\theta$

$x+N\cdot 360=78.46$

$1=438.46$

$-\alpha+N\cdot 360=-78.46$ ✓

$\theta=281.54$

$H(t)=5\cos\left(\frac{2\pi}{3}t\right)-35.5$ 127

$35=5\cos\left(\frac{2\pi}{3}t\right)-35.5$

$\frac{0.5}{5}=\cos\left(\frac{2\pi}{3}t\right)$

$\cos^{-1}(0.1)=1.4706289$

$\pi-\alpha=1.670963751$

$\alpha=\frac{3}{2\pi}=0.7021735794$

$A(t)=25\cos(\pi t)+65$

$50=25\cos(\pi t)+65$

$-\frac{15}{25}=\cos(\pi t)$

$\cos^{-1}\left(\frac{-15}{25}\right)=2.214297444$

$\pi-\alpha=0,9272952180$

$\alpha=53.1301024°$

$\beta=126.8697976$

$\theta=233.1301024$

~~$x=\frac{\alpha}{\pi}=0.7431327165$~~

$x=\frac{\alpha}{\pi}=1.295164444$ ✓

$16\cos(8x)-2=6$ 129

$\cos(8x)=\frac{6+2}{16}$

$\cos^{-1}\left(\frac{8}{16}\right)=1.047197551$

$\pi-\alpha=2.094395102$

$\frac{\alpha}{8}+N\cdot\frac{2\pi}{8}=\frac{\alpha}{8}+N\cdot\frac{\pi}{4}$

$x=0.13089969+N\cdot\frac{\pi}{4}$

$x=\frac{\pi}{8}+N\cdot\frac{\pi}{4}$

$x=\frac{\pi}{24}+N\cdot\frac{\pi}{4}$ ✓

$\sin\left(\frac{19\pi}{12}\right)$ 130

$\sin\left(\frac{19\pi}{12}\right)=195°$

~~$120+135=75$~~

~~$300-240-45$~~

~~$60-45$~~

$\frac{19\pi}{12}-\frac{3\pi}{12}$

$\sin\alpha\cos\beta-\sin\beta\cos\alpha$

$\frac{1}{2}\cdot\frac{\sqrt{2}}{2}-\frac{\sqrt{2}}{2}\cdot\frac{\sqrt{2}}{2}$

$\frac{\sqrt{2}-\sqrt{2}}{4}$ ✓

$\sin(x)=-0.55$ 13

$\sin^{-1}(-0.55)=-0.5823$

$\pi-\alpha=-2.559221842$

$\alpha+N\cdot 2\pi$

$\beta+N\cdot 2\pi$ ✓

$\sin(\cos(x))=-0.4$ 13

$\cos^{-1}(-0.4)=1.982287$

$\pi-\alpha=1,159244948$

$(180°, 720°)$

$\alpha+N\cdot 360$

0 ✓

$\sin(x)=-0.25$ 13

$\sin^{-1}(-0.25)=-0.2527$

$\pi-(\alpha)=2.889124$

$\alpha+N\cdot 2\pi$

$\beta+N\cdot 2\pi$

$\sin\left(\frac{\pi}{12}\right)$ $\frac{4\pi}{12}-\frac{3\pi}{12}$ 13

~~$135-180$~~

$180-135$

$60-45°$

$2\sin 45\cdot\frac{\sqrt{2}}{2}$