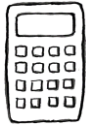


Solving Trigonometric Equations

ANSWERS



Solve the following equations for $0^\circ \leq x \leq 360^\circ$.

Give answers to 1 decimal place.

- 1) $\sin x = 1$ 90°
- 2) $\tan x = 1$ $45^\circ, 225^\circ$
- 3) $\cos x = 1$ $0^\circ, 360^\circ$
- 4) $\sin x = 0.5$ $30^\circ, 150^\circ$
- 5) $\cos x = 0.6$ $53.1^\circ, 306.9^\circ$
- 6) $\tan x = 0.2$ $11.3^\circ, 191.3^\circ$
- 7) $7 \cos x = 3$ $64.6^\circ, 295.4^\circ$
- 8) $2 \tan x = \frac{1}{4}$ $7.1^\circ, 187.1^\circ$
- 9) $8 + 3 \sin x = 10$ $41.8^\circ, 138.2^\circ$
- 10) $\tan x = -1$ $135^\circ, 315^\circ$
- 11) $\sin x = -0.9$ $244.2^\circ, 295.8^\circ$
- 12) $\tan x = -0.1$ $174.3^\circ, 354.3^\circ$
- 13) $7 + 8 \sin x = 4$ $202.0^\circ, 338.0^\circ$
- 14) $\sin 2x = 0.2886$ $8.4^\circ, 81.6^\circ, 188.4^\circ, 261.6^\circ$
- 15) $\cos 3x = -0.3321$ $36.5^\circ, 83.5^\circ, 156.5^\circ, 203.5^\circ, 276.5^\circ, 323.5^\circ$
- 16) $\sin (x + 20^\circ) = 0.6551$ $20.9^\circ, 119.1^\circ$
- 17) $\tan (x - 15^\circ) = -0.9128$ $152.6^\circ, 332.6^\circ$

18) $\cos (2x + 33^\circ) = 0.306$ $19.6^\circ, 127.4^\circ, 199.6^\circ, 307.4^\circ$

19) $\tan^2 x = \frac{1}{4}$ $26.6^\circ, 153.4^\circ, 206.6^\circ, 333.4^\circ$

20) $\cos^2 x = \frac{1}{2}$ $45^\circ, 135^\circ, 225^\circ, 315^\circ$