

# TRIGONOMETRIE : équations

## Exercices récapitulatifs sur les équations

1.  $2 \cos 2x + \sqrt{3} = 0$

17.  $\operatorname{tg} 2x - 2\operatorname{tg} x = 0$

2.  $\cos(2x - 60^\circ) = -1$

18.  $2 \cos^2 x = 3 \sin x \cos x$

3.  $\sin x + \cos(\pi/3) = 0$

19.  $\operatorname{tg} x \operatorname{cotg} 2x = \operatorname{tg} 2x \operatorname{cotg} x$

4.  $\operatorname{tg} x + \operatorname{cotg}(\pi/3) = 0$

20.  $\operatorname{tg}^2 4x = \operatorname{cotg}^2 x$

5.  $\cos 2x + \sin x = 0$

21.  $\operatorname{tg}^2 x - 4 \operatorname{tg} x + 3 = 0$

6.  $\operatorname{tg} x \operatorname{tg} 3x = 1$

22.  $2 \cos^2 x - \sin^2 x - 2 \cos x = 0$

7.  $\sin(2x - (\pi/6)) = \cos(x + (\pi/3))$

23.  $\operatorname{tg} x = 3 \operatorname{cotg} x$

8.  $\sin 2x \operatorname{cosec}((\pi/3) - x) = -1$

24.  $\operatorname{tg} x \operatorname{tg}(x/2) = 1$

9.  $\cos 2x + \cos 3x = 0$

25.  $\operatorname{tg}^2 x + 5 = 7 / \cos x$

10.  $\operatorname{tg}^2 x = 3(\sec x - 1)$

26.  $2 \cos^3 x - 3 \sin^2 x \cos x = 0$

11.  $2 \cos^2 x + 4 \sin^2 x = 3$

27.  $\cos x - \operatorname{tg} x = 0$

12.  $2 \sin x = \operatorname{cosec} x$

28.  $2 \cos^2 x = \cos x$

13.  $\operatorname{tg} x + 1 = \sqrt{3} (\operatorname{cotg} x + 1)$

29.  $\operatorname{sec}^2 x - 4 \operatorname{tg} x + 2 = 0$

14.  $3 \cos^2 x + 2 \sin^2 x = 2.75$

30.  $9 \sin^2 x + 27 \sin x - 10 = 0$

15.  $\sin 2x = 2 \sin x$

31.  $\operatorname{tg} 4x + \operatorname{tg} 3x = 0$

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