

Trigonométrie

Question 1/35

$$\frac{1}{2}(\cos(x+y) + \cos(x-y))$$

Réponse 1/35

$$\cos(x) \cos(y)$$

Question 2/35

$$\frac{2t}{1+t^2}$$

$$t = \tan\left(\frac{x}{2}\right)$$

Réponse 2/35

$$\sin(x)$$

$$t = \tan\left(\frac{x}{2}\right)$$

Question 3/35

$$\frac{\tan(x) + \tan(y)}{1 - \tan(x) \tan(y)}$$

Réponse 3/35

$$\tan(x + y)$$

Question 4/35

$$\cos(x)$$

$$t = \tan\left(\frac{x}{2}\right)$$

Réponse 4/35

$$\frac{1 - t^2}{1 + t^2}$$

$$t = \tan\left(\frac{x}{2}\right)$$

Question 5/35

$$\frac{1 - t^2}{2t}$$

$$t = \tan\left(\frac{x}{2}\right)$$

Réponse 5/35

$$\cot(x)$$

$$t = \tan\left(\frac{x}{2}\right)$$

Question 6/35

$$2 \cos\left(\frac{x+y}{2}\right) \cos\left(\frac{x-y}{2}\right)$$

Réponse 6/35

$$\cos(x) + \cos(y)$$

Question 7/35

$$\cos(x) \cos(y) + \sin(x) \sin(y)$$

Réponse 7/35

$$\cos(x - y)$$

Question 8/35

$$\tan(x)$$

$$t = \tan\left(\frac{x}{2}\right)$$

Réponse 8/35

$$\frac{2t}{1-t^2}$$

$$t = \tan\left(\frac{x}{2}\right)$$

Question 9/35

$$\frac{1 + \cos(2x)}{2}$$

Réponse 9/35

$$\cos^2(x)$$

Question 10/35

$$\cos(\pi - x)$$

Réponse 10/35

$$-\cos(x)$$

Question 11/35

$$\frac{\cot^2(x) - 1}{2 \cot(x)}$$

Réponse 11/35

$$\cot(2x)$$

Question 12/35

$$\frac{-\cot(x)\cot(y)-1}{\cot(x)-\cot(y)} = \frac{\cot(x)\cot(y)+1}{\cot(y)-\cot(x)}$$

Réponse 12/35

$$\cot(x - y)$$

Question 13/35

$$\sin(x) \cos(y)$$

Réponse 13/35

$$\frac{1}{2}(\sin(x+y) + \sin(x-y))$$

Question 14/35

$$\cos(2x)$$

Réponse 14/35

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

Question 15/35

$$\sin\left(x + \frac{\pi}{2}\right)$$

Réponse 15/35

$$\cos(x)$$

Question 16/35

$$\frac{1}{2}(\cos(x - y) - \cos(x + y))$$

Réponse 16/35

$$\sin(x) \sin(y)$$

Question 17/35

$$\cos(x + \pi)$$

Réponse 17/35

$$-\cos(x)$$

Question 18/35

$$2 \cos\left(\frac{x+y}{2}\right) \sin\left(\frac{x-y}{2}\right)$$

Réponse 18/35

$$\sin(x) - \sin(y)$$

Question 19/35

$$\sin(x + y)$$

Réponse 19/35

$$\sin(x) \cos(y) + \sin(y) \cos(x)$$

Question 20/35

$$\sin\left(\frac{\pi}{2} - x\right)$$

Réponse 20/35

$$\cos(x)$$

Question 21/35

$$\sin(x) + \sin(y)$$

Réponse 21/35

$$2 \sin\left(\frac{x+y}{2}\right) \cos\left(\frac{x-y}{2}\right)$$

Question 22/35

$$\cot(x + y)$$

Réponse 22/35

$$\frac{\cot(x) \cot(y) - 1}{\cot(x) + \cot(y)}$$

Question 23/35

$$\sin(x + \pi)$$

Réponse 23/35

$$-\sin(x)$$

Question 24/35

$$\sin(x) \cos(y) - \sin(y) \cos(x)$$

Réponse 24/35

$$\sin(x - y)$$

Question 25/35

$$2 \sin(x) \cos(x)$$

Réponse 25/35

$$\sin(2x)$$

Question 26/35

$$\cos(x + y)$$

Réponse 26/35

$$\cos(x) \cos(y) - \sin(x) \sin(y)$$

Question 27/35

$$\cos\left(\frac{\pi}{2} - x\right)$$

Réponse 27/35

$$\sin(x)$$

Question 28/35

$$\tan(2x)$$

Réponse 28/35

$$\frac{2 \tan(x)}{1 - \tan^2(x)}$$

Question 29/35

$$\cos(x) \sin(y)$$

Réponse 29/35

$$\frac{1}{2}(\sin(x+y) - \sin(x-y))$$

Question 30/35

Valeurs remarquables

Réponse 30/35

| | 0 | $\frac{\pi}{6}$ | $\frac{\pi}{4}$ | $\frac{\pi}{3}$ | $\frac{\pi}{2}$ |
|-----|---|----------------------|----------------------|----------------------|-----------------|
| sin | 0 | $\frac{1}{2}$ | $\frac{\sqrt{2}}{2}$ | $\frac{\sqrt{3}}{2}$ | 1 |
| cos | 1 | $\frac{\sqrt{3}}{2}$ | $\frac{\sqrt{2}}{2}$ | $\frac{1}{2}$ | 0 |
| tan | 0 | $\frac{1}{\sqrt{3}}$ | 1 | $\sqrt{3}$ | — |
| cot | — | $\sqrt{3}$ | 1 | $\frac{1}{\sqrt{3}}$ | 0 |

Question 31/35

$$\cos\left(x + \frac{\pi}{2}\right)$$

Réponse 31/35

$$-\sin(x)$$

Question 32/35

$$\frac{1 - \cos(2x)}{2}$$

Réponse 32/35

$$\sin^2(x)$$

Question 33/35

$$\sin(\pi - x)$$

Réponse 33/35

$$\sin(x)$$

Question 34/35

$$\cos(x) - \cos(y)$$

Réponse 34/35

$$-2 \sin\left(\frac{x+y}{2}\right) \sin\left(\frac{x-y}{2}\right)$$

Question 35/35

$$\frac{\tan(x) - \tan(y)}{1 + \tan(x) \tan(y)}$$

Réponse 35/35

$$\tan(x - y)$$