

Nisbah Trigonometri

Sinus, Kosinus dan Tangen bagi Sudut Tirus dalam Segi Tiga Bersudut Tegak

Standard Pembelajaran

5.1.6 Melakukan pengiraan yang melibatkan sinus, kosinus dan tangen.

CASIO®



Boost Your Curiosity

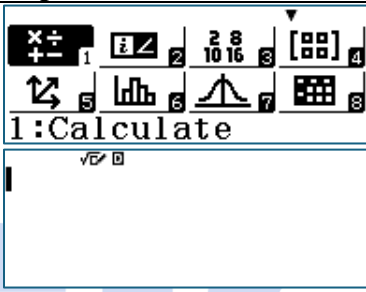
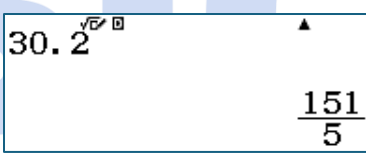
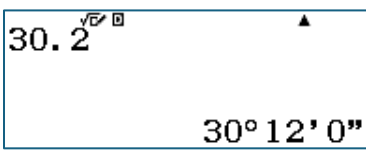
Menukarkan suatu sudut kepada unit darjah dan minit serta sebaliknya

1. Tukarkan setiap sudut berikut kepada unit darjah dan minit.

- a) 30.2°
- b) 37.8°
- c) 74.6°

Penyelesaian

- a) 30.2°

Arahan	Paparan Skrin Kalkulator
MENU 1	
Masukkan nilai sudut yang diberi. 3 0 . 2 =	
Tukarkan nilai sudut dalam darjah dan minit. ° ' "	 Daripada paparan, $30.2^\circ = 30^\circ 12'$

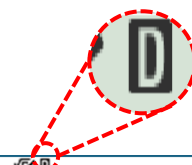
Nota:

Pastikan kalkulator dalam unit *degree*.

SHIFT **MENU** **2** **1**

1:Input/Output
2:Angle Unit
3:Number Format
4:Engineer Symbol

1:Degree
2:Radian
3:Gradian

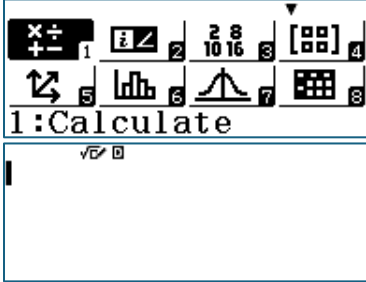
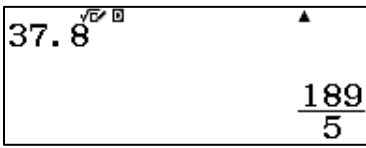
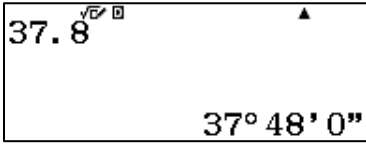


Atau

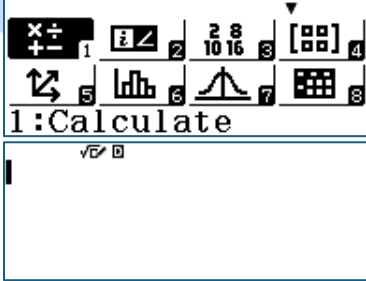
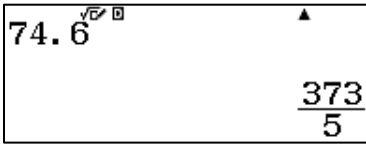
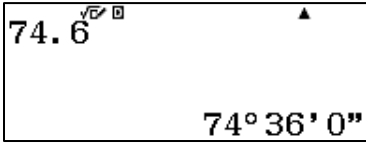
Set semula (*Reset*) kalkulator: **SHIFT** **9** **3** **=** **AC**

Boost Your Curiosity

b) 37.8°

Arahan	Paparan Skrin Kalkulator
MENU 1	
Masukkan nilai sudut yang diberi. 3 7 . 8 =	
Tukarkan nilai sudut dalam darjah dan minit. 0 9 9	 Daripada paparan, $37.8^\circ = 37^\circ 48'$

c) 74.6°

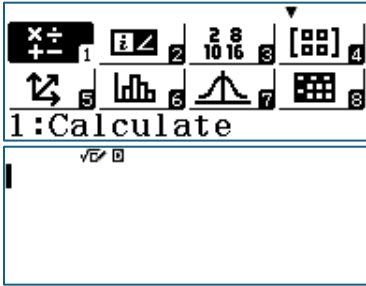
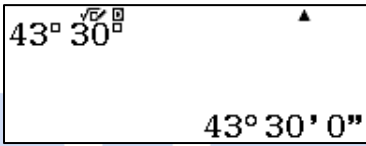
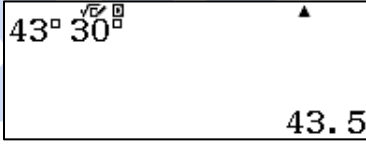
Arahan	Paparan Skrin Kalkulator
MENU 1	
Masukkan nilai sudut yang diberi. 7 4 . 6 =	
Tukarkan nilai sudut dalam darjah dan minit. 0 9 9	 Daripada paparan, $74.6^\circ = 74^\circ 36'$

2. Tukarkan setiap sudut berikut kepada unit darjah.

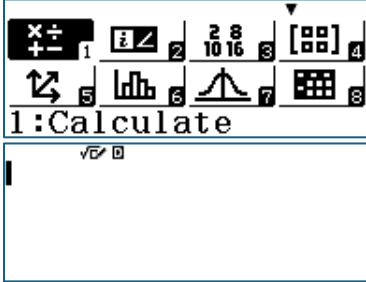
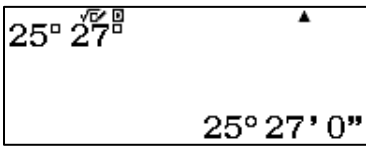
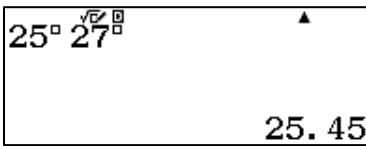
- a) $43^{\circ} 30'$
- b) $25^{\circ} 27'$
- c) $81^{\circ} 59'$

Penyelesaian

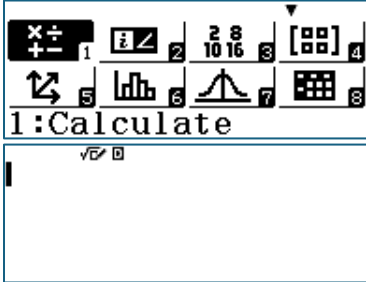
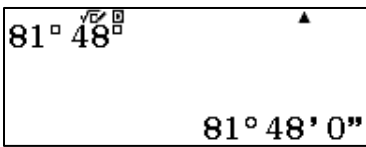
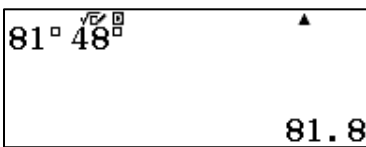
- a) $43^{\circ} 30'$

Arahan	Paparan Skrin Kalkulator
MENU 1	
Masukkan nilai sudut yang diberi. 4 3 ° 3 0 ' =	
Tukarkan nilai sudut dalam unit darjah. °	
	Daripada paparan, $43^{\circ} 30' = 43.5^{\circ}$

b) $25^{\circ} 27'$

Arahan	Paparan Skrin Kalkulator
MENU 1	
Masukkan nilai sudut yang diberi. 2 5 ° ' " 2 7 ° ' " =	
Tukarkan nilai sudut dalam unit darjah. ° ' "	 Daripada paparan, $25^{\circ} 27' = 25.45^{\circ}$

c) $81^{\circ} 48'$

Arahan	Paparan Skrin Kalkulator
MENU 1	
Masukkan nilai sudut yang diberi. 8 1 ° ' " 4 8 ° ' " =	
Tukarkan nilai sudut dalam unit darjah. ° ' "	 Daripada paparan, $81^{\circ} 48' = 81.8^{\circ}$

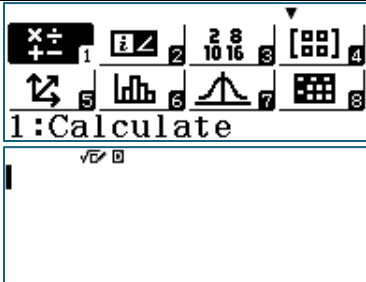
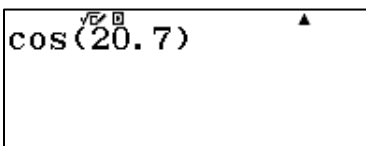
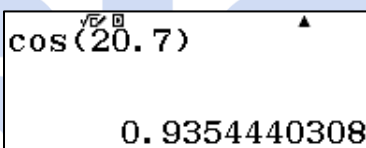
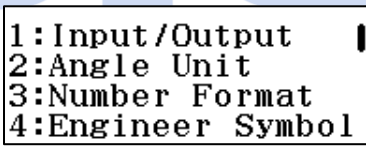
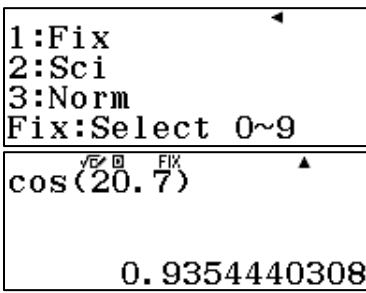
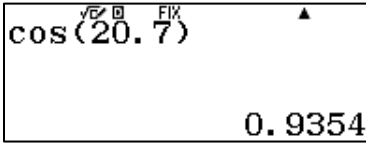
3. Tentukan nilai-nilai yang berikut kepada empat tempat perpuluhan.

a) $\cos 20.7^\circ$

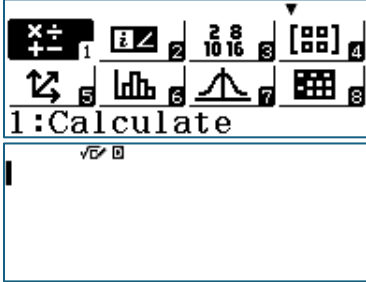
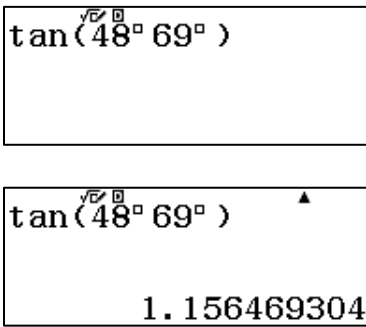
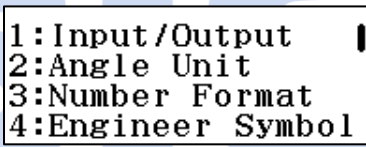
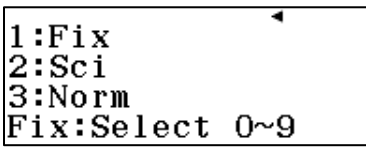
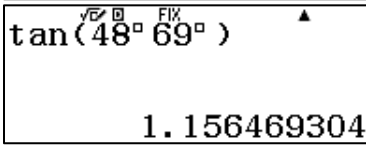
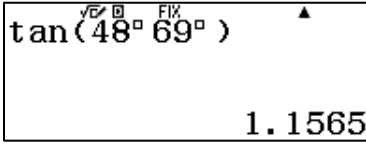
b) $\tan 48^\circ 69'$

Penyelesaian

a) $\cos 20.7^\circ$

Arahan	Paparan Skrin Kalkulator
MENU 1	
Masukkan nilai yang diberi. cos 2 0 . 7)	
=	
Tukarkan jawapan kepada empat tempat perpuluhan. SHIFT MENU 3 1 Masukkan bilangan tempat perpuluhan; Pilih '4' 4	 
Dapatkan jawapan. =	 Daripada paparan, $\cos 20.7^\circ = 0.9354$

b) $\tan 48^\circ 69'$

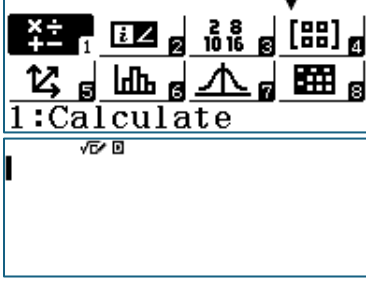
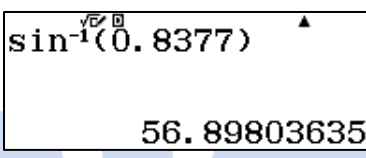
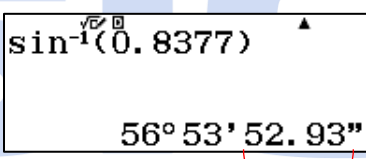
Arahan	Paparan Skrin Kalkulator
MENU 1	
Masukkan nilai yang diberi. tan 4 8 ° 6 9 ') =	
Tukarkan jawapan kepada empat tempat perpuluhan. SHIFT MENU 3 1 Masukkan bilangan tempat perpuluhan; Pilih '4' 4	  
Dapatkan jawapan. =	 Daripada paparan, $\tan 48^\circ 69' = 1.1565$

4. Tentukan nilai-nilai x yang berikut dengan menggunakan kalkulator saintifik.

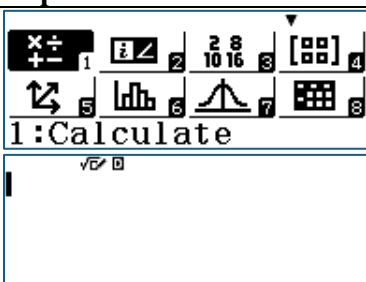
- $\sin x = 0.8377$
- $\cos x = 0.5609$
- $\tan x = 2.2162$

Penyelesaian

- $\sin x = 0.8377$

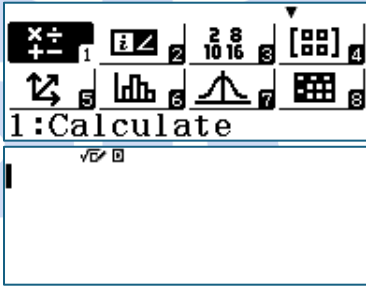
Arahan	Paparan Skrin Kalkulator
MENU 1	
Cari nilai x apabila, $x = \sin^{-1} 0.8377$ SHIFT sin 0 . 8 3 7 7) = Dapatkan dalam unit darjah dan minit. ° ' "	  Unit saat lebih besar daripada 30, maka tambahkan 1 unit pada minit. * Tambahkan 1 unit pada minit, maka jawapan ialah $56^\circ 54'$ Oleh itu, $x = 56^\circ 54'$ atau 56.90°

- $\cos x = 0.5609$

Arahan	Paparan Skrin Kalkulator
MENU 1	

Cari nilai x apabila, $x = \cos^{-1} 0.5609$ SHIFT COS 0 . 5 6 0 9) = Dapatkan dalam unit darjah dan minit. ° ' "	$\cos^{-1}(0.5609)$ 55.88193839 $\cos^{-1}(0.5609)$ 55° 52' 54.98" Unit saat lebih besar daripada 30, maka tambahkan 1 unit pada minit. * Tambahkan 1 unit pada minit, maka jawapan ialah 55° 53' Oleh itu, $x = 55^\circ 53'$ atau 55.88°
---	--

c) $\tan x = 2.0087$

Arahan	Paparan Skrin Kalkulator
MENU 1	
Cari nilai x apabila, $x = \tan^{-1} 2.0087$ SHIFT TAN 2 . 0 0 8 7) = Dapatkan dalam unit darjah dan minit. ° ' "	$\tan^{-1}(2.0087)$ 63.53429765 $\tan^{-1}(2.0087)$ 63° 32' 3.47" Oleh itu, $x = 63^\circ 32'$ atau 63.53°