Analysis CP

WS Solving Trigonometric Equations A

Give the **principal solution(s)** for each equation. Give exact solutions were appropriate. Make sure remember each functions restricted domain.

|  |  |  |  |
| --- | --- | --- | --- |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1.
 | 1. 3cosx = 1
 | 1. tan x ( tan x – 1)= 0
 | 1.
 |

 17. 5sinx – 2= 0 18. 4.2cos x + 3 = 0

Analysis CP

WS Solving Trigonometric Equations B

For problems #1-14, provide **all real solutions (in Radians)** for each equation. Give exact solutions where appropriate.

|  |  |  |
| --- | --- | --- |
| 1.
 | 1.
 | 1.
 |
| 1.
 | 1.
 | 1.
 |
| 1.
 | 1.
 | 1. sec2 x + tan x – 1 = 0
 |
| 1. cos 2x + sin x= 1
 | 1.
 | 1.
 |
| 1.
 | 14.  |
|  |  |

Analysis CP

WS Solving Trigonometric Equations C

|  |  |
| --- | --- |
| Solve each equation for **principal values** of x. Express solutions in radians. Give exact values. | Solve each equation for **[ 0, 2**$π )$. Give exact values where appropriate. |
| 1.
 | 1.
 | 1.
 | 1.
 |
|  |  |  |  |
| Solve each equation for **[ 0, 2**$π )$. Give exact values where appropriate. | Solve each equation for **[ 0, 2**$π )$**.** Round your answers to the nearest thousandth. |
| 1.
 | 1.
 | 1.
 | 1.
 |
|  |  |  |  |
| Solve each equation for **all real values** of x (in Radians). Give exact values where appropriate. |
| 1.
 | 1.
 | 1.
 | 1.
 |
|  |  |  |  |

Analysis CP

WS Solving Trigonometric Equations D

1. Provide the restricted domains for Sin-1x, Cos-1x, and Tan-1x.

Evaluate:

|  |  |  |
| --- | --- | --- |
| 2. tan-1(-1) | 3. | 4.  |
| 5. Cos ( sin-1 ($\frac{-1}{2}$) ) | 6. csc ( cos-1 ($\frac{\sqrt{2}}{2}$) ) | 7. tan-1( 0 ) |

First solve for all real values. Then, list the solutions from [ 0, 2π ). Give exact value when appropriate.

|  |  |  |
| --- | --- | --- |
| 8. | 9. | 10. |