EXCLUDED VALUES.

Note Title 12/10/2012

RECALL FROM MATH 11

FIND THE EXCLUDED FUN

$$\frac{x}{x+1} + \frac{x}{2-x}$$

$x+1=0$

$-1 \quad -1$

$x=-1$

$2-x=0$

$+x \quad +x$

$2=x$

THE SAME WORKS FUN THIS.

IE FIND THE EXCLUDED VALUE

A) $\frac{\text{SEN}x}{\text{SEN}x\cos x}$

$\text{SEN}x \neq 0 \qquad \cos x \neq 0$

B) $\frac{\cos x - 1}{\cos x + 1}$ $\qquad \cos x \neq -1$

↳ $\cos x + 1 = 0$

$-1 \quad -1$

C) $\frac{\text{TAN}x}{\text{SEN}x} \Longrightarrow$ $\text{SEN}x \neq 0$ $\qquad \frac{\text{SEN}x}{\cos x}$ $\therefore$ $\cos x \neq 0$

D) $\frac{\text{CSC}x}{1 + \text{SEN}x} \Longrightarrow \frac{1}{\text{SEN}x}$ $\therefore$ $\text{SEN}x \neq 0$

$\text{SEN}x \neq -1$

E) $\dfrac{\cos x}{\sin^2 x - 1} \Rightarrow (\sin x + 1)(\sin x) = 0$

$\sin x = -1$

$\sin x = 1$

$\sin x \neq \pm 1$

$x^2 - 1 = 0$

$+1 \quad +1$

$x^2 = 1$

$\sqrt{x^2} = \sqrt{1}$

$x = \pm 1$

F) $\dfrac{1}{2\sin^2 x + \sin x - 1} \Rightarrow 2x^2 + x - 1 = 0$

$2x^2 + 2x - x - 1 = 0$

$2x(x+1) - 1(x+1) = 0$

$(x+1)(2x-1) = 0$

$x+1 = 0 \qquad 2x-1 = 0$

$x = -1 \qquad x = \frac{1}{2}$

$\sin x \neq -1 \quad \sin x \neq \frac{1}{2}$

6) $\dfrac{3\sec x + 5}{8\csc x - 3}$ → $\frac{1}{\cos x}$ ∴ $\boxed{\cos x \neq 0}$

SOLN $8\csc x - 3 = 0$

$\csc x = \frac{3}{8}$

$\boxed{\sin x \neq \frac{8}{3}}$

H/W Pg 45
SECT 6.5
#1, 2