Name:_____

5.3 practice (by skill)

Part 1: [Isolate the trigonometric expression & root]

1) Solve the equation.

$2+3\cos x-5=0$

2) Solve the equation.

$0=\pi\sec x+\pi$

3) Solve the equation.

$5\tan^3 x-5=0$

4) Find all solutions on the interval $[0,2\pi)$

$0=2\sin x-1$

5) Find all solutions on the interval $[0,2\pi)$

$3\tan x-\sqrt{3}=0$

6) Find all solutions on the interval $[0,2\pi)$

$3\cos^2 x=3$

7) Solve the equation.

$-4=-6-\sqrt{3}\sec x$

8) Find all solutions on the interval $[0,2\pi)$

$9\tan^2 x-3=0$

9) Solve the equation.

$3\cos x=\cos x-1$

Part 2: [Factoring]

10) Find all solutions on the interval $[0,2\pi)$

$2\cos^4 x-\cos^2 x=0$

11) Find all solutions on the interval $[0,2\pi)$

$3\cot^4 x-24=\cot^2 x$

12) Find all solutions on the interval $[0,2\pi)$

$2\sin^3 x=\sin x$

13) Find all solutions on the interval $[0,2\pi)$

$\sqrt{3}\cos x\tan x-\cos x=0$

14) Solve the equation.

$-\tan^2 x=-2\tan^4 x+15$

15) Find all solutions on the interval $[0,2\pi)$

$\sec x\csc^2 x=2\sec x$

<u>Part 3:</u> [Rewrite to use a single trig function; Pyth Ident}

16) Find all solutions on the interval $[0,2\pi)$

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

17) Find all solutions on the interval $[0,2\pi)$

$\sec^2\theta+\tan\theta=1$

18) Find all solutions on the interval $[0,2\pi)$

$\cos^2 x+5\sin x-7=0$