Bellwork Alg 2 Tuesday, March 31, 2020

1. Solve. $\log_4(x+5) - \log_4 x = 2$

2. Given $\tan\theta = \frac{112}{15}$ find the remaining five trig ratios.

$\sin\theta =$ $\cos\theta =$ $\cot\theta =$

$\sec\theta =$ $\csc\theta =$

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ANSWERS

1. Solve. $\log_4(x+5) - \log_4 x = 2$

$\log_4 \frac{x+5}{x} = 2$

$4^2 = \frac{x+5}{x}$

$x \cdot 16 = \frac{x+5}{x} \cdot x$

$16x = x+5$

$-x \quad -x$

$\frac{15x}{15} = \frac{5}{15}$

$x = \frac{5}{15} = \frac{1}{3}$

2. Given $\tan\theta = \frac{112}{15}$ find the remaining five trig ratios.

$\sin\theta = \frac{112}{113}$ $\frac{opp}{hyp}$

$\cos\theta = \frac{15}{113}$ $\frac{adj}{hyp}$

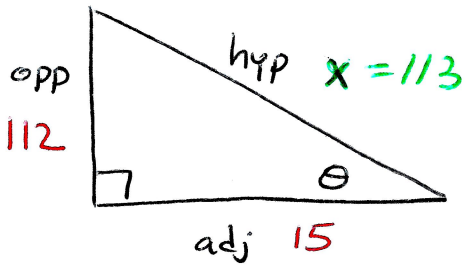
$\cot\theta = \frac{15}{112}$ $\frac{1}{Tan}$

SOHCAHTOA

$\sec\theta = \frac{113}{15}$ $\frac{1}{Cos}$

$\csc\theta = \frac{113}{112}$ $\frac{1}{Sin}$

$Tan\ \theta = \frac{112}{15}$ → opp, → adj



$x^2 = 112^2 + 15^2$

$x = \sqrt{112^2 + 15^2}$

$x = 113$