Algebra 2/Trig H HW#_____ SSA Triangles and Review

DRAW FIGURES AND SHOW WORK on your own paper.

#1-3 Use your calculator. Round decimal answers to the nearest tenth.

1. Find all solutions for ΔABC, if $\angle A = 42°$, $a = 8$, $b = 11$.
2. Find all solutions for ΔABC, if $\angle A = 58°$, $a = 20$, $b = 10$.
3. Find all values of θ that make each statement true.

a) $\tan\theta = 1.2662$, if $90° < \theta < 270°$ b) $\sin\theta = -.3907$, if $180° < \theta < 360°$

#4 No Calculators!

Draw triangles and/or show work. Find exact answers in simplest form. Give angle measures in radians.

a) $\sin^{-1}\left(\frac{-1}{2}\right)$ b) $\cos^{-1}\left(\sin\frac{7\pi}{6}\right)$ c) $\csc\left(\tan^{-1}(-1)\right)$

d) $\tan\left(\cos^{-1}\frac{4}{5}\right)$ e) $\cot\left(\sec^{-1}(-5)\right)$

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1. $\angle B \approx 66.9°$, $\angle C \approx 71.1°$, $c \approx 11.3$ or $\angle B \approx 113.1°$, $\angle C \approx 24.9°$, $c \approx 5.0$
2. $\angle B \approx 25.1°$, $\angle C \approx 96.9°$, $c \approx 23.4$ (only one solution)

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