

Week 6 Open Book Classwork - Ref. Ch. 8-5

Date Thurs. 11-29-12 Period ALL

Find each trig. ratio. Don't forget ASTC. Round your answers to the nearest ten-thousandth.

1) $\cos 85^\circ$

2) $\cos 270^\circ$

3) $\sin 180^\circ$

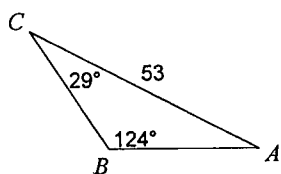
4) $\sin 345^\circ$

5) $\sin -170^\circ$

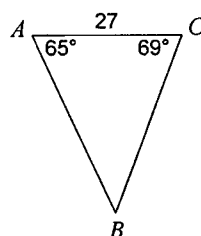
6) $\cos -246^\circ$

Find each measurement indicated. Sides- nearest tenth, angles-nearest deg. AAS or ASA Triangles.

7) Find AB

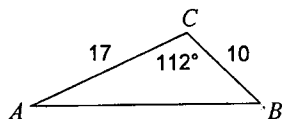


8) Find BC

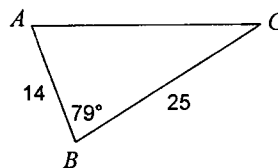


Find each measurement indicated. Sides- nearest tenth, angles-nearest deg. SAS Triangles.

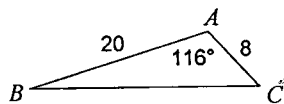
9) Find AB



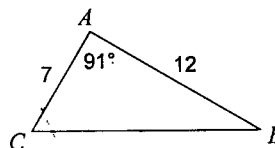
10) Find AC



11) Find $m\angle B$

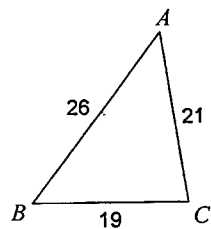


12) Find $m\angle B$

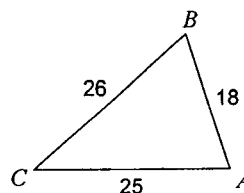


Find each measurement indicated. Sides- nearest tenth, angles-nearest deg. SSS Triangles.

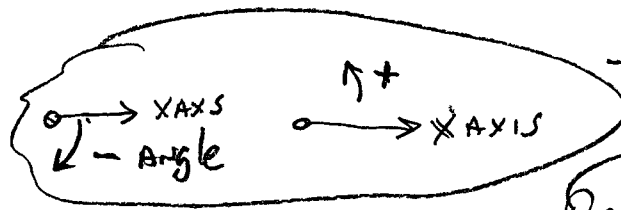
13) Find $m\angle C$



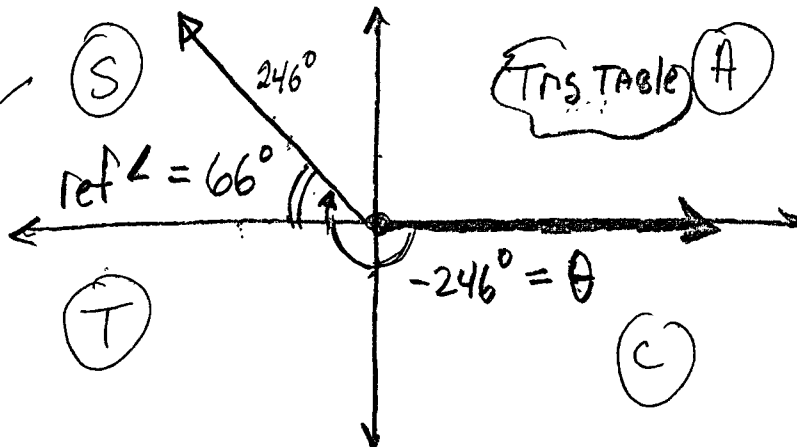
14) Find $m\angle C$



⑥ $\cos -246$



- , + angles



REF ∠
 • BACK TO X AXIS
 • ALWAYS +
 • ACUTE

① $\sin -246 = +\sin 66$

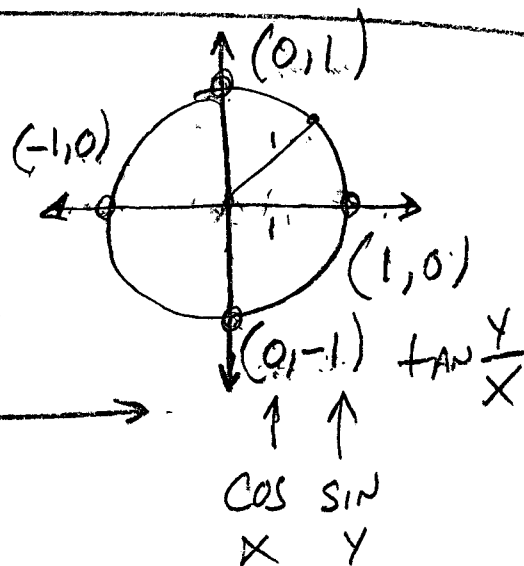
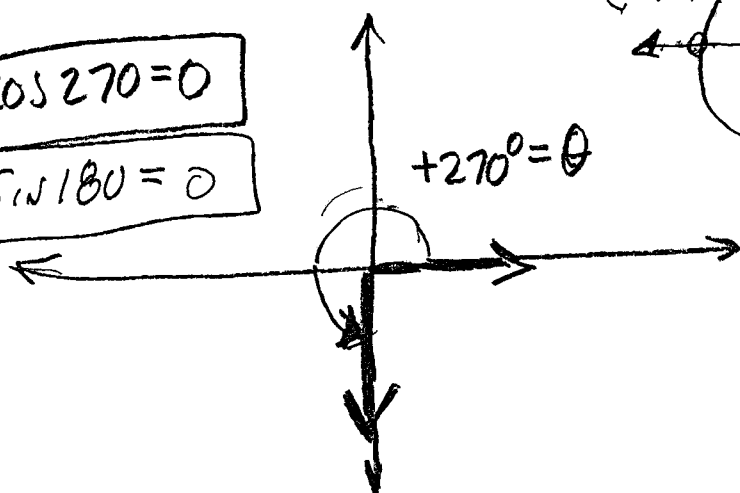
② $\cos -246 = -\cos 66 = \boxed{-0.4067}$

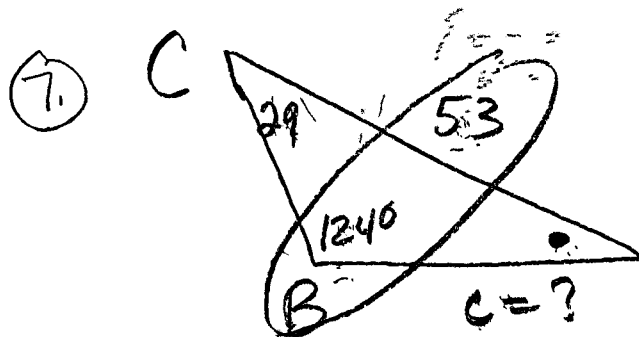
③ $\tan -246 = -\tan 66$

ur def
 $\frac{2}{0}$
 ur def
 $\frac{1}{0}$

② AND ③ $\sin 180^\circ, \cos 270^\circ$

$\cos 270 = 0$
 $\sin 180 = 0$





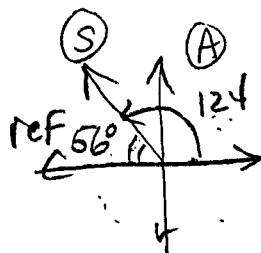
Find $AB = c$?

AAS = LOS

ASA

** 2 angles means you
really know 3 angles

$$\frac{\sin 124}{53} = \frac{\sin 29}{c}$$



$$\frac{\sin 56}{53} = \frac{\sin 29}{c}$$

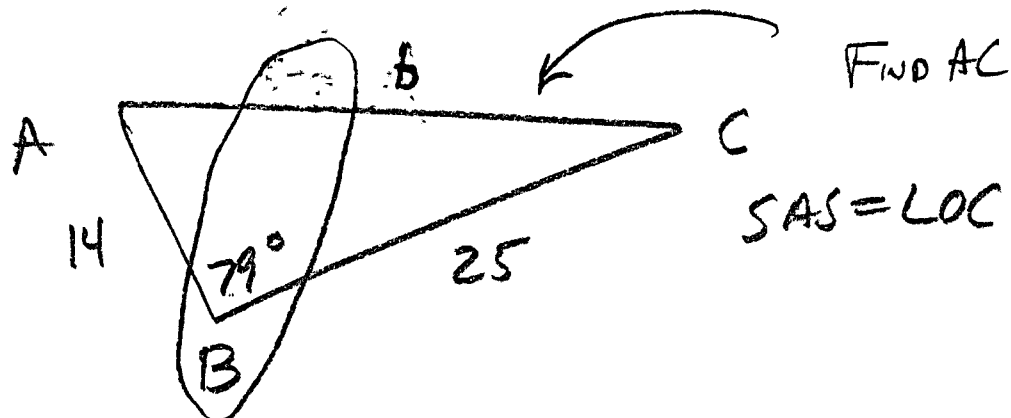
$$\frac{c \sin 56}{\sin 56} = \frac{53 \sin 29}{\sin 56}$$

$$c = \frac{53(.4848)}{(.8290)} = \frac{29.6944}{.8290}$$

$$c = 30.994$$

$$\boxed{c = 31.0}$$

(16)



$$b^2 = 14^2 + 25^2 - 2(14)(25) \cos 79$$

$$b^2 = 196 + 625 - 700 \cos 79$$

$$b^2 = 821 - 700 \cos 79$$

$$b^2 = 821 - 700(.1908)$$

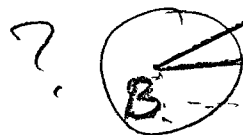
$$b^2 = 821 - 133.56$$

$$b^2 = 687.44$$

$$b = \sqrt{687.44} \approx 26.219$$

$$b \approx 26.2$$

① m∠B



SAS $\Rightarrow$ LOC

⑤/①



ONE FORM $\begin{cases} SSS \\ SAS \end{cases}$ 3/4
 $c^2 = a^2 + b^2 - 2ab \cos C$
 SIDE SIDE SIDE Angle

$$a^2 = 20^2 + 8^2 - 2(20)(8) \cos 116$$

BC

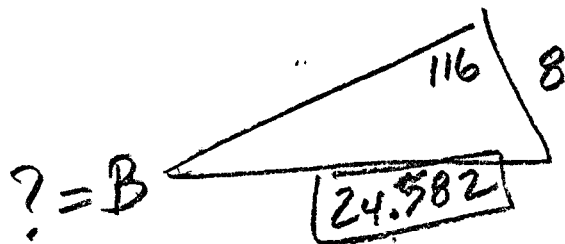
$-\cos 64$

$$a^2 = 400 + 64 - 320(-.4384)$$

$$a^2 = 464 + 140.288$$

$$a^2 = 604.288$$

$$a = 24.582$$



ref = 64

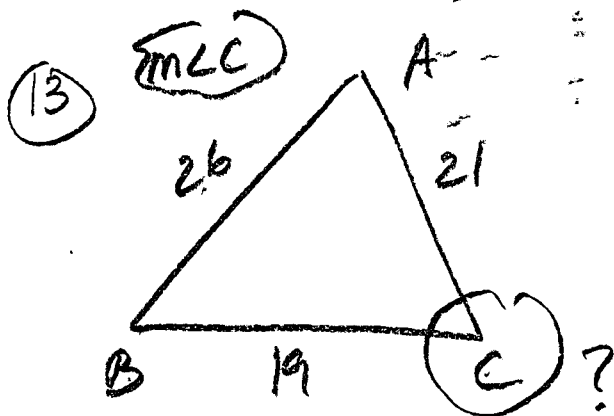
$$\frac{\sin 116}{24.582} = \frac{\sin B}{8}$$

MULT
B2
8

$$(8) \frac{(.8988)}{24.582} = \sin B$$

$$.2925 = \sin B$$

$$\sin^{-1}(.2925) = 17^\circ$$



SSS $\Rightarrow$ LOC

$$26^2 = 19^2 + 21^2 - 2(19)(21) \cos C$$

$$676 = 361 + 441 - 798 \cos C$$

$$676 = 802 - 798 \cos C$$

$\downarrow$

$$-802 \quad -802$$

$$\frac{-126}{-798} = \frac{-798 \cos C}{-798}$$

$$.1579 = \cos C$$

$$\cos^{-1}(.1579) = C = 81^\circ$$

