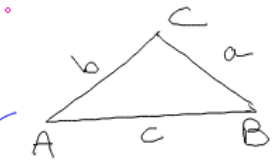
## Make corrections to your homework problems
## p448#1-8, 11,13,14,16

1. $A \simeq 30.7^\circ$ $C \simeq 18.3^\circ$ $b \simeq 19.2$
2. $A \simeq 80.3^\circ$ $B \simeq 57.7^\circ$ $c \simeq 9.5$
3. $A \simeq 76.8^\circ$ $B \simeq 43.2^\circ$ $C \simeq 60^\circ$
4. $A \simeq 52.2^\circ$ $B \simeq 99.2^\circ$ $C \simeq 28.6^\circ$
5. $B \simeq 89.3^\circ$ $C \simeq 35.7^\circ$ $a \simeq 9.8$
6. $A \simeq 123.3^\circ$ $C \simeq 21.7^\circ$ $b \simeq 29.5$
7. $A \simeq 28.5^\circ$ $B \simeq 56.5^\circ$ $c \simeq 25.1$
8. $B \simeq 37.9^\circ$ $C \simeq 60.1^\circ$ $a \simeq 35.4$
11. $A \simeq 24.6^\circ$ $B \simeq 99.2^\circ$ $C \simeq 56.2$
- * 13. $B_1 \simeq 72.9^\circ$ $C_1 \simeq 65.1^\circ$ $c_1 \simeq 9.487$
  $B_2 \simeq 107.1^\circ$ $C_2 \simeq 30.9^\circ$ $c_2 \simeq 5.376$
14. $B \simeq 49.7^\circ$ $C = 73.3^\circ$ $c \simeq 12.564$
16. $B \simeq 59.8^\circ$ $C = 49.2^\circ$ $c \simeq 7.447$

## Law of sine (5.5)




$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

AAS ASA SSA ??

## Law of cosine

$$a^2 = b^2 + c^2 - 2bc\cos A$$
$$b^2 = a^2 + c^2 - 2ac\cos B$$
$$c^2 = a^2 + b^2 - 2ab\cos C$$

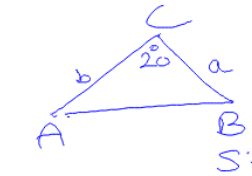
SSS SAS

Review p451 (39-44, 5.4)

AAA → cannot solve

Solve the triangle

$a = 11 \quad b = 5 \quad C = 20^\circ$




SAS.

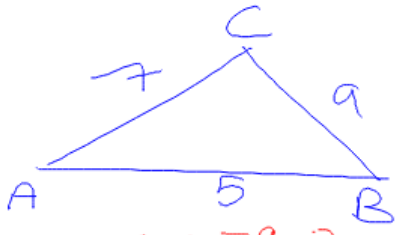
$c \simeq 6.5 \quad B \simeq 15^\circ \quad A \simeq 145^\circ$

$c^2 = a^2 + b^2 - 2ab\cos C$

$\frac{\sin C}{c} = \frac{\sin A}{a}$

Solve the triangle

$a = 9 \quad b = 7 \quad c = 5$




$7+5 > 9$
$7+9 > 5$
$9+5 > 7$
} yes

$A \simeq 96^\circ$
$B \simeq 50^\circ$
$C \simeq 34^\circ$

Does this triangle exist?

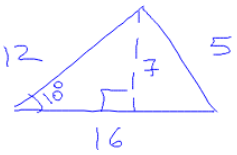
Triangle Inequality theorem.

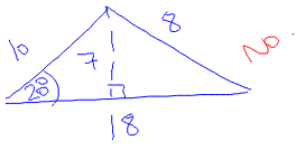
The sum of 2 side lengths of a triangle is always greater than the third side

C

$a + b > c$
$a + c > b$
$b + c > a$


$5+16>12$
$5+12>16$
$12+16>5$




No.

$18 = 10 + 8$

p448: 9, 10, 12

start reviewing 5.4, 5.5, 5.6