

WARMUP

Which info are you given in each picture in 1-4?

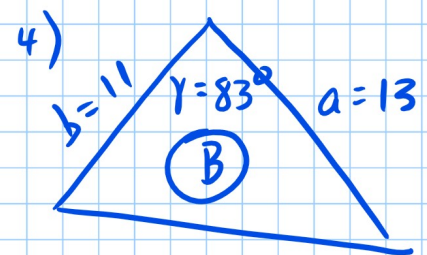
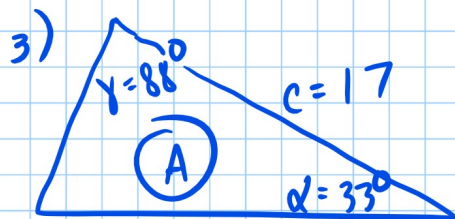
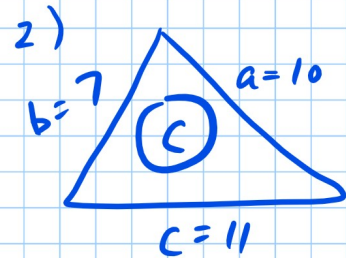
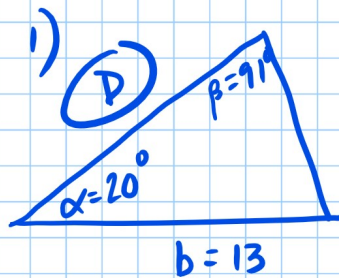
A) ASA

B) SAS

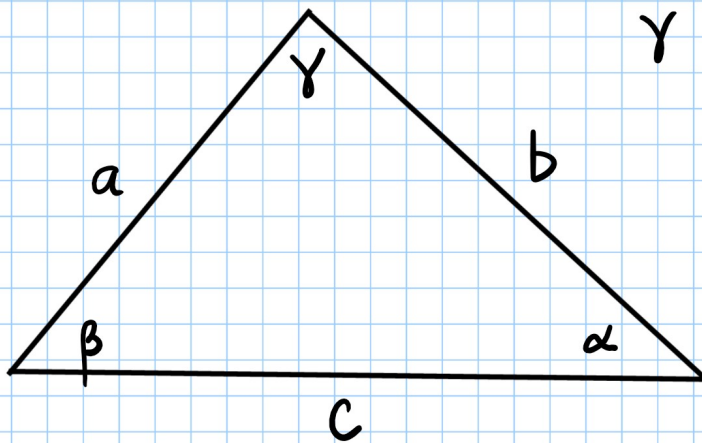
C) SSS

D) AAS

E) SSA



Section 7.2 The Law of Sines



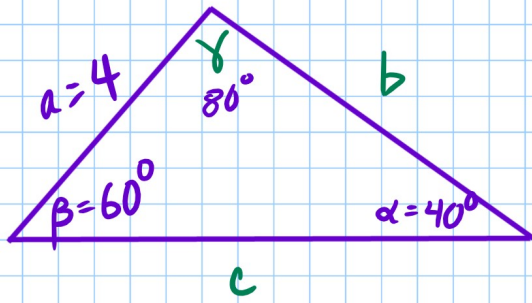
$\gamma \Rightarrow$ Greek letter "gamma"

$$\frac{\sin \alpha}{a} = \frac{\sin \beta}{b} = \frac{\sin \gamma}{c}$$

Use Law of Sines

for AAS, ASA, and
SSA

ex: Solve the triangle with $\alpha = 40^\circ$, $\beta = 60^\circ$, $a = 4$



$$\gamma = \underline{80^\circ}$$

$$c = \underline{6.1}$$

$$b = \underline{5.4}$$

$$\gamma = 180 - 60 - 40$$

$$\gamma = 80^\circ$$

$$\frac{\sin 40^\circ}{4} \times \frac{\sin 60^\circ}{b}$$

$$\frac{\sin 40^\circ}{4} = \frac{\sin 80^\circ}{c}$$

$$\frac{b \cancel{\sin 40^\circ}}{\cancel{\sin 40^\circ}} = \frac{4 \sin 60^\circ}{\sin 40^\circ}$$

$$\frac{c \cancel{\sin 40^\circ}}{\cancel{\sin 40^\circ}} = \frac{4 \sin 80^\circ}{\sin 40^\circ}$$

$$b = 5.4$$

$$c = 6.1$$

p547 1-13 odd