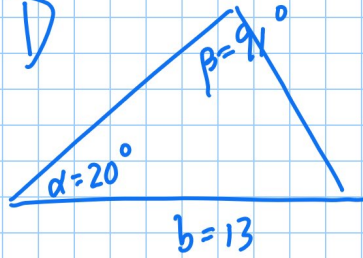
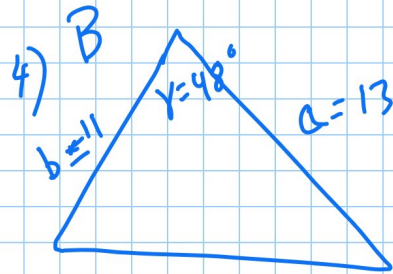
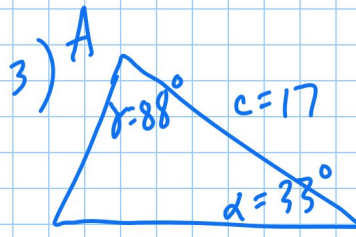
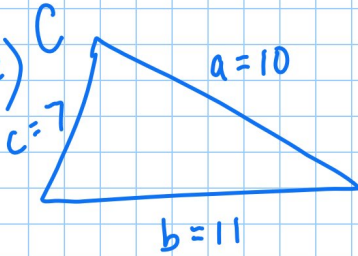


WARMUP

1) D



2) C

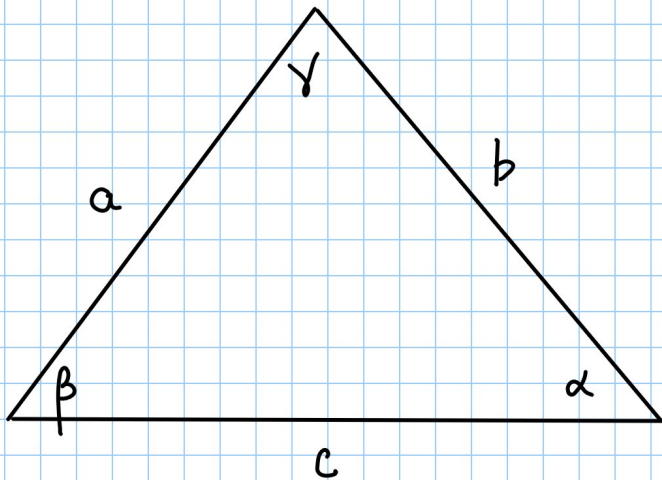


What info are you given?

- A) ASA
- B) SAS
- C) SSS
- D) AAS
- E) SSA

Section 7.2

The Law of Sines

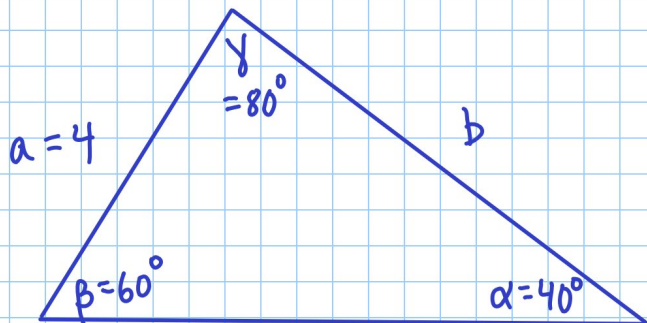


$$\frac{\sin \alpha}{a} = \frac{\sin \beta}{b} = \frac{\sin \gamma}{c}$$

Use Law of Sines for
AAS, ASA, and SSA

ex: Solve the triangle:

$$\alpha = 40^\circ, \beta = 60^\circ, a = 4$$



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

$$b = \underline{5.4}$$

$$c = \underline{6.1}$$

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

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

$$b \sin 40^\circ = 4 \sin 60^\circ$$

$$b = \frac{4 \sin 60^\circ}{\sin 40^\circ} \quad \left. \vphantom{b} \right\} \text{degree mode}$$

$$b = 5.4$$

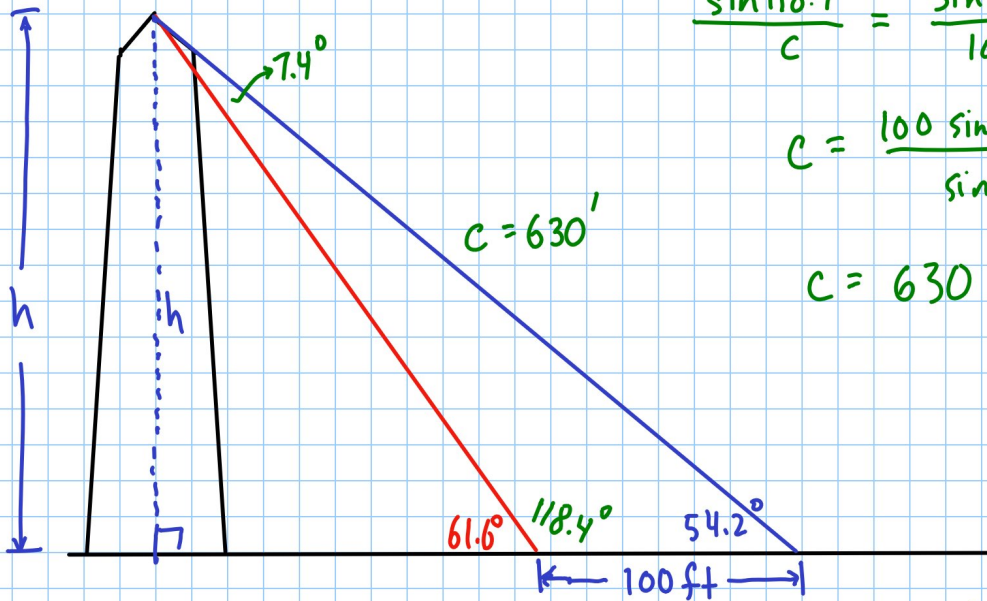
$$\frac{\sin 80^\circ}{c} = \frac{\sin 40^\circ}{4}$$

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

$$c = 6.1$$

ex: While in D.C. you visit the Washington monument. From an unknown distance the angle of elevation is 61.6° .

You then walk 100ft farther away. Now the angle is 54.2° . How tall (to the nearest foot) is the monument?



$$\frac{\sin 118.4^\circ}{c} = \frac{\sin 7.4^\circ}{100}$$

$$c = \frac{100 \sin 118.4^\circ}{\sin 7.4^\circ}$$

$$c = 630$$

$$\sin 54.2^\circ = \frac{h}{630}$$

$$h = 630 \sin 54.2^\circ$$

$$h = 554 \text{ ft}$$

p547-548

3, 11, 31, 33, 34

33)

