

The Cosine Law: Explore the Math, p437

Date: _____

By following the instructions on pp. 437-38 and using the figures (Fig. 1 to 5; below) and table provided, complete Parts D, F, H, I, J and K.

Triangle (Fig.)	a	b	c	Angle C	c^2	$a^2 + b^2$	$a^2 + b^2 - c^2$	$2ab(\cos C)$
1								
2								
3								
4								
5								

Figures (1 to 5)

Fig. 1

$$a = 5.21 \text{ cm}$$

$$b = 4.63 \text{ cm}$$

$$c = 6.97 \text{ cm}$$

$$m\angle BCA = 90.00^\circ$$

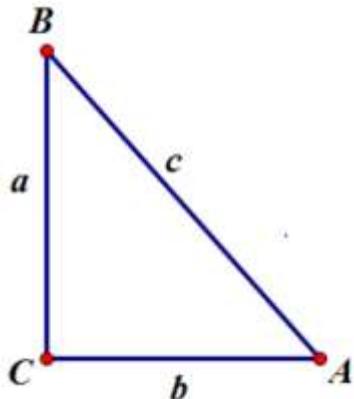


Fig. 2

$$a = 6.36 \text{ cm}$$

$$b = 8.28 \text{ cm}$$

$$c = 6.97 \text{ cm}$$

$$m\angle BCA = 54.99^\circ$$

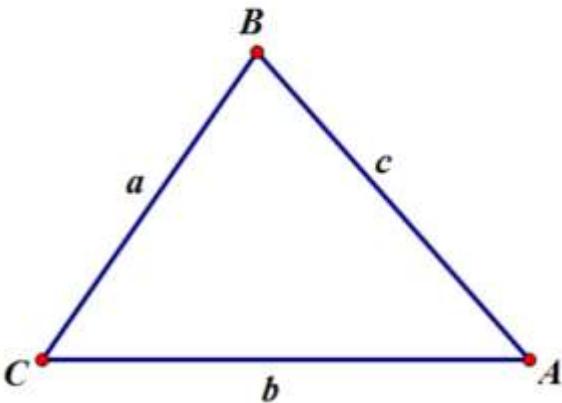


Fig. 3

$a = 7.37 \text{ cm}$
 $b = 9.84 \text{ cm}$
 $c = 6.97 \text{ cm}$

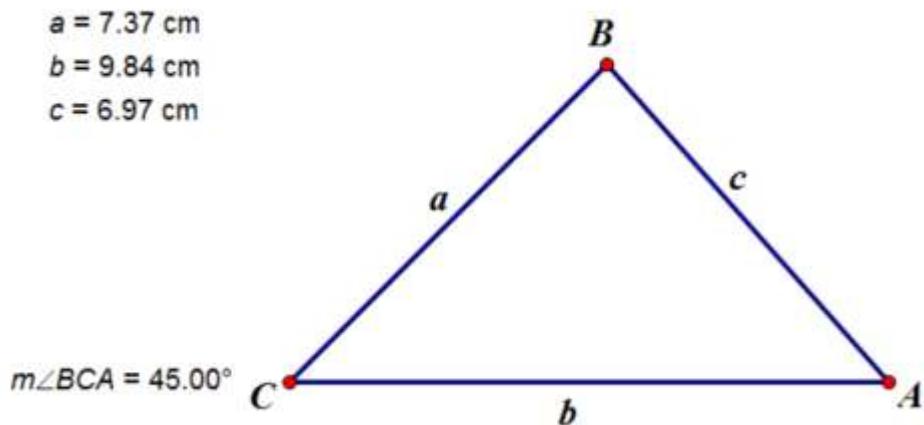
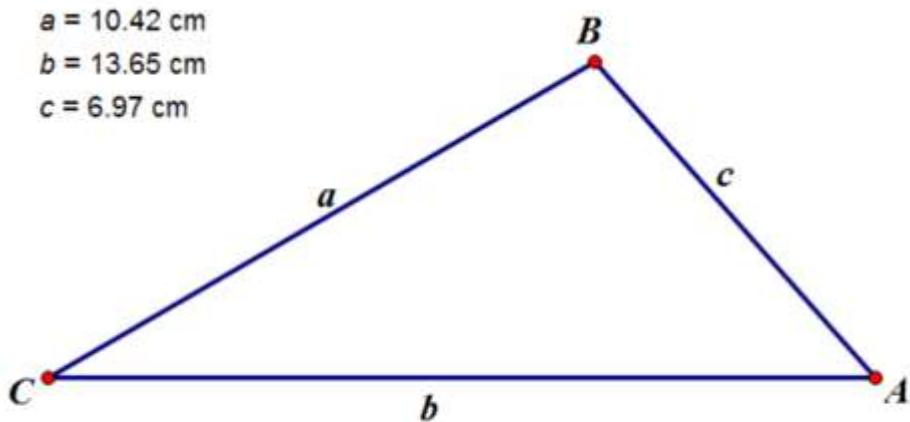


Fig. 4

$a = 10.42 \text{ cm}$
 $b = 13.65 \text{ cm}$
 $c = 6.97 \text{ cm}$



$$m\angle BCA = 30.02^\circ$$

Fig. 5

$a = 5.23 \text{ cm}$
 $b = 5.00 \text{ cm}$
 $c = 6.97 \text{ cm}$

$$m\angle BCA = 85.94^\circ$$

