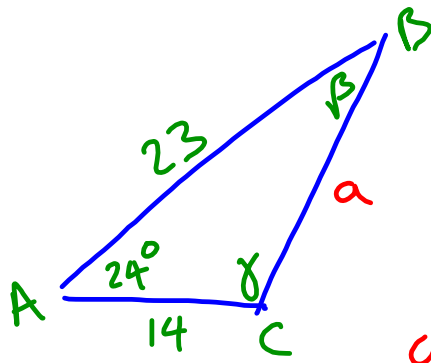


28A



$$\frac{\sin 24^\circ}{11.69} = \frac{\sin \beta}{14}$$

$$a^2 = 14^2 + 23^2 - 2 \cdot 14 \cdot 23 \cdot \cos 24^\circ$$

$$a^2 = 136.677$$

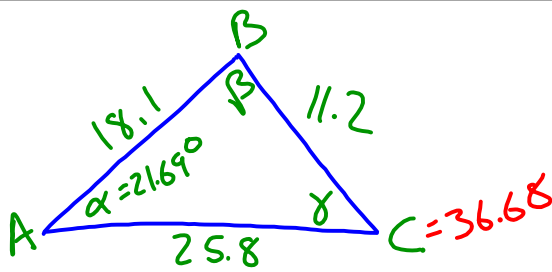
$$a = 11.69$$

$$\frac{14 \sin 24^\circ}{11.69} = \frac{11.69 \sin \beta}{11.69}$$

$$\gamma = 180^\circ - 24^\circ - 29.15^\circ$$

$$\gamma = 126.85^\circ$$

$$\sin^{-1}\left(\frac{14 \sin 24^\circ}{11.69}\right) = \beta = 29.158$$



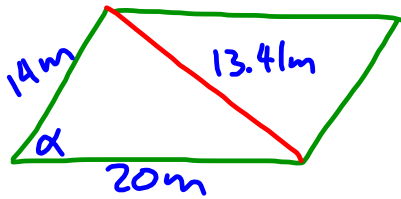
$$25.8^2 = 18.1^2 + 11.2^2 - 2 \cdot 18.1 \cdot 11.2 \cdot \cos \beta$$

$$\frac{25.8^2 - 18.1^2 - 11.2^2}{-2 \cdot 18.1 \cdot 11.2} = \cos \beta$$

$$\cos^{-1}\left(\frac{25.8^2 - 18.1^2 - 11.2^2}{-2 \cdot 18.1 \cdot 11.2}\right) = \beta = 121.62^\circ$$

$$\cos^{-1}\left(\frac{11.2^2 - 18.1^2 - 25.8^2}{-2 \cdot 18.1 \cdot 25.8}\right) = \alpha = 21.69^\circ$$

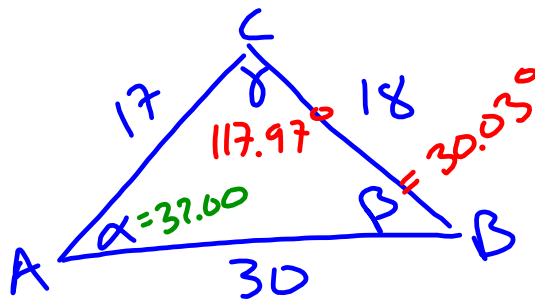
$$\cos^{-1}\left(\frac{18.1^2 - 11.2^2 - 25.8^2}{-2 \cdot 11.2 \cdot 25.8}\right) = \gamma = 36.68^\circ$$

30A

$$13.41^2 = 14^2 + 20^2 - 2 \cdot 14 \cdot 20 \cdot \cos \alpha$$

$$\frac{13.41^2 - 14^2 - 20^2}{-2 \cdot 14 \cdot 20} = \cos \alpha$$

$$\cos^{-1} \left(\frac{13.41^2 - 14^2 - 20^2}{-2 \cdot 14 \cdot 20} \right) = \alpha = 42.00^\circ$$

29C

$$30^2 = 17^2 + 18^2 - 2 \cdot 17 \cdot 18 \cdot \cos \gamma$$

$$\frac{30^2 - 17^2 - 18^2}{-2 \cdot 17 \cdot 18} = \cos \gamma$$

$$\cos^{-1} \left(\frac{30^2 - 17^2 - 18^2}{-2 \cdot 17 \cdot 18} \right) = \gamma = 117.97^\circ$$