* $AC = \frac{14(\sqrt{7})}{3\sqrt{7}(\sqrt{7})}$

$= \frac{^{2}\cancel{14}\sqrt{7}}{3\times \cancel{7}}$

$AC = \frac{2\sqrt{7}}{3}$ cm

* $BC = \frac{28(\sqrt{14})}{3\sqrt{14}(\sqrt{14})}$

$= \frac{^{2}\cancel{28}\sqrt{14}}{3\times \cancel{14}_{1}}$

$BC = \frac{2\sqrt{14}}{3}$ cm

then, $AB = AC = \frac{2\sqrt{7}}{3}$ cm

so, ABC is isosceles Δ at A

In Δ ABC we have:

Apply converse of pythagorean theorem:

$hyp^2 \overset{?}{=} leg_1^2 + leg_2^2$

$BC^2 \overset{?}{=} AB^2 + AC^2$ $\quad$ $AB = AC$

$\left(\frac{2\sqrt{14}}{3}\right)^2 \overset{?}{=} 2\left(\frac{2\sqrt{7}}{3}\right)^2$

$\frac{4(14)}{9} \overset{?}{=} 2\left[\frac{4(7)}{9}\right]$

$\frac{56}{9} \overset{\checkmark}{=} \frac{56}{9}$

hence, ABC is right Δ at A

thus, ABC is right isosceles at A

so, C