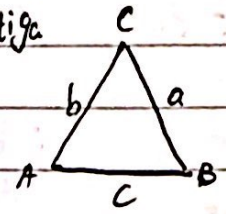
Rabu, 18 Maret 2020

No.

Date:

1. Dik : $a = 10$, $b = 12$, $c = 14$ Dit? Luas Segitiga



- $L = \sqrt{s(s-a)(s-b)(s-c)}$

$s = \frac{1}{2}(12+10+14) = \frac{1}{2}(36) = 18$

$L = \sqrt{18(18-10)(18-12)(18-14)}$

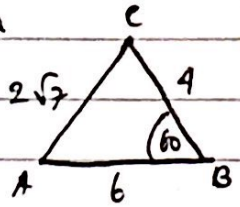
$= \sqrt{18(8)(6)(4)}$

$= \sqrt{9 \times 2 \times 8 \times 6 \times 4}$

$= 3 \cdot 4 \cdot 2\sqrt{6}$

$= 24\sqrt{6}$

2. Dik: $a : 4$, $b : 2\sqrt{7}$, $c : 6$ Dit: Luas segitiga



- $\cos B = \frac{6^2 + 4^2 - (2\sqrt{7})^2}{2(6)(4)}$

$= \frac{36 + 16 - 28}{12 \times 4}$

$\cos B = \frac{24}{12 \times 4} = \frac{1}{2} = 60$

$\sin B = \frac{1}{2}\sqrt{3} = \sin 60 = \frac{\sqrt{3}}{2}$

$L = \frac{1}{2} \cdot c \cdot a \sin B$

$= \frac{1}{2} \cdot 6 \cdot 4 \cdot \frac{1}{2}\sqrt{3}$

$= 6\sqrt{3}$

No.

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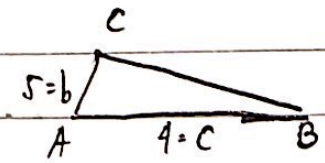
3. Dik: $L = \frac{5}{2}\sqrt{15}\ cm^2$ Dit: Panjang BC!

$AC = 5$ cm

$AB = 4$ cm

$\angle BAC$: lancip

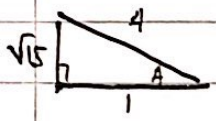


$L = \frac{5}{2}\sqrt{15}\ cm^2$

$L = \frac{1}{2} \cdot b \cdot c \sin A$

$\frac{5}{2}\sqrt{15} = \frac{1}{2} \cdot 5 \cdot 4 \sin A$

$\sin A = \frac{\sqrt{15}}{4} = \frac{de}{mi}$



$\cos A = \frac{1}{4}$

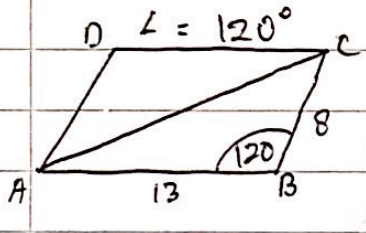
$BC^2 = b^2 + c^2 - 2bc \cos A$

$= 25 + 16 - 2(5)(4) \cdot \frac{1}{4}$

$= 41 - 10$

$BC = \sqrt{31}$

4. Dik: Sisi: 8 dan 13 cm Dit: Luas Segitiga!



$L_{\triangle} = L_{ABC}$

$= \frac{13 \times 8}{2} \cdot \sin 120$

$= 52 \cdot \frac{1}{2}\sqrt{3}$

$= 26\sqrt{2}$