Find x° :

LOC

$$15^2 = 21^2 + 10^2 - 2(21)(10)\cos X$$

$$X = 41.2^\circ$$

2 b)

$$\begin{array}{r} 82 \\ +25 \\ \hline 107 \end{array}$$

$$\angle B = 73^\circ$$

$$\frac{\sin 73}{b} = \frac{\sin 25}{34}$$

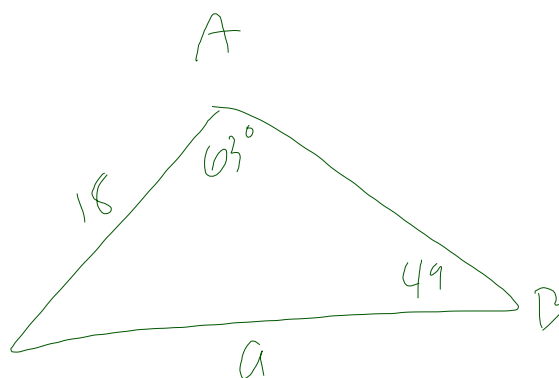
$$b = \frac{34 \sin 73}{\sin 25}$$

$$b = 76.9$$

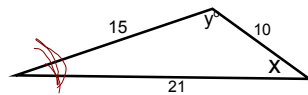
2a)

$$\frac{\sin 63^\circ}{a} = \frac{\sin 49^\circ}{18}$$

$$a = \frac{18 \sin 63^\circ}{\sin 49^\circ}$$



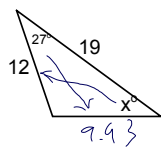
$$\angle B = 45^\circ \quad a = 8 \quad b = 11$$



Find y° :

$$21^2 = 15^2 + 10^2 - 2(10)(15)\cos y^\circ$$

$$y^\circ = 112.7^\circ$$



SAS

Find the Area: $Area = \frac{1}{2} ab \sin C$

$$Area = \frac{1}{2} (12)(19) \sin 27^\circ$$

$$Area = 57.75 \text{ units}^2$$

Find x:

$$a^2 = 12^2 + 19^2 - 2(12)(19) \cos 27^\circ$$

$$a^2 = 98.70102497$$

$$a = 9.93$$

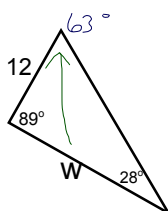
Find x

$$\frac{\sin 27^\circ}{9.93} = \frac{\sin x}{12}$$

$$12 \sin 27^\circ = 9.93 \sin x$$

$$\frac{12 \sin 27^\circ}{9.93} = \sin x$$

$$x^\circ = 33.3^\circ$$



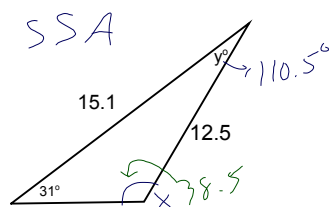
AAS

$$180 - 89 - 28 = 63$$

Find w:

$$\frac{\sin 28^\circ}{12} = \frac{\sin 63^\circ}{w}$$

$$w = 22.8$$



Find the area of the triangle: (SSA)

$$\text{Area} = \frac{1}{2}(15.1)(12.5)\sin 110.5^\circ$$

Find y° :

$$\frac{\sin 31^\circ}{12.5} = \frac{\sin X^\circ}{15.1}$$

$$15.1 \sin 31^\circ = 12.5 \sin X$$

$$\sin X = \frac{15.1 \sin 31^\circ}{12.5}$$

$$\sin X = .622145 \dots$$

$$X = 38.5^\circ$$