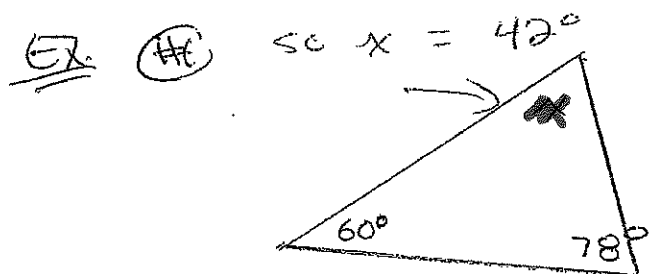


# Angles in a Triangle

## Examples

By Definition all 3 angles in a triangle must equal exactly  $(180^\circ)$



Find the value of  $x$

$$60 + 78 = 138^\circ$$

then  $180^\circ - 138^\circ = 42^\circ$

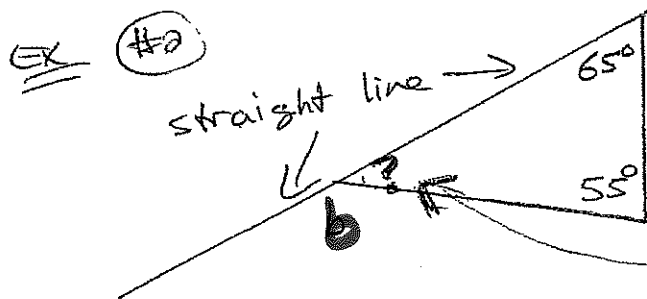
\* some students may want to use their protractor to measure for  $x$ .

Tell them that the numbers in a question should always be used if they are given.

If not they can measure.

## Exterior and Interior Angles of a $\Delta$ .

\* By definition angles on a straight line equal  $(180^\circ)$



Find  $b$

First you need to find the missing angle in the triangle

$$65 + 55 = 120^\circ$$

so missing angle =  $(60^\circ)$

Then use that info. to

solve for  $b$

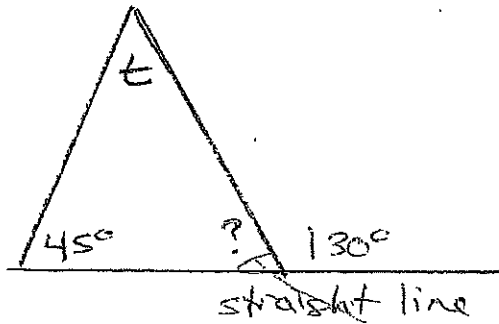
$$180^\circ - 60^\circ = (120^\circ)$$

$$b = 120^\circ$$

Ex.

#3

Find  $t$  that is inside the  $\triangle$



Find the ? first

$$180^\circ - 130^\circ$$

$$= 50^\circ$$

Then use that info. to find  $t$ .

$$45 + 50 = 95^\circ$$

$$t = 180 - 95 = 85^\circ$$

$$t = 85^\circ$$