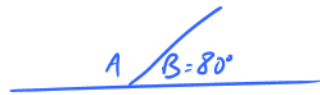


Angle Theorems you should know

SAT: Supplementary Angle Theorem

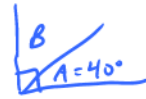
$$A + B = 180^\circ$$



$$\therefore \angle A = 180 - 80 = 100^\circ$$

CAT: Complementary Angle Theorem

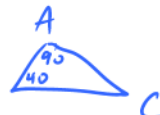
$$A + B = 90^\circ$$



$$\therefore \angle B = 90 - 40 = 50^\circ$$

ASTT: Angle Sum of a Triangle Theorem

$$\angle A + \angle B + \angle C = 180^\circ$$



$$180 - (90 + 40) = 50^\circ = \angle C$$

ITT: Isosceles Triangle Theorem

$\rightarrow$ 2 base angles are equal



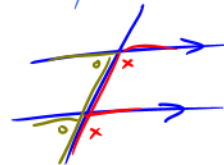
$$\therefore \angle B = \angle C$$

PLT: Parallel Line Theorem

Z pattern:



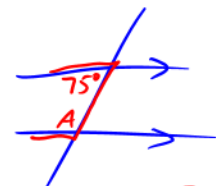
F pattern:



C pattern:

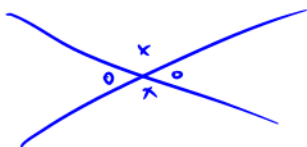


$$A + B = 180^\circ$$



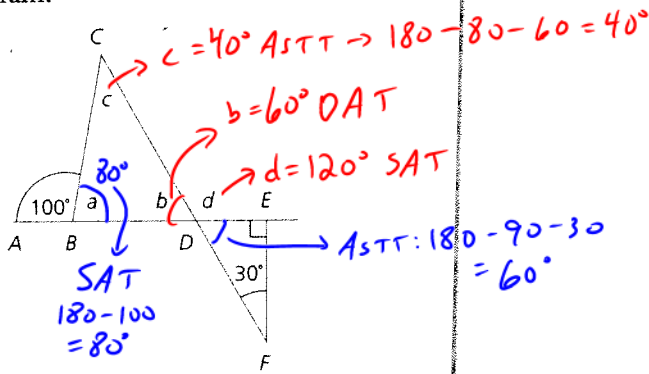
$$A + 75 = 180$$
$$\therefore \angle A = 105^\circ$$

OAT: opposite Angle Theorem

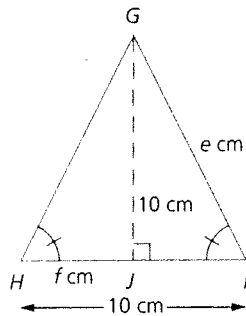


1. Find the unknown measures in each diagram.

(a)



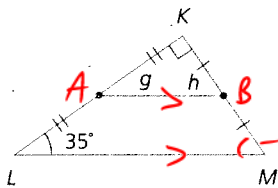
(b)



Handwritten notes for (b):
 $f = \frac{10}{2} = 5 \text{ cm}$ why? ΔGJH is the same (congruent) as ΔGJI

Handwritten notes for (b):
 Pythagorean Thm
 $10^2 + 5^2 = e^2$
 $125 = e^2$
 $11.2 = e$

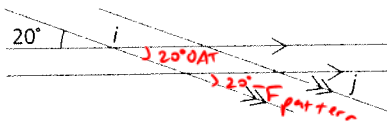
(c)



Handwritten notes for (c):
 ΔKAB is similar to ΔKLM (why? it's twice as big)
 $\therefore AB \parallel LM$

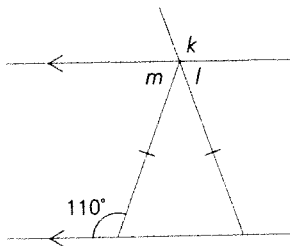
Handwritten notes for (c):
 $g = 35^\circ$
 $h = 55^\circ$

(d)



Handwritten notes for (d):
 $i = 160^\circ$ SAT
 $j = 20^\circ$ F pattern

(e)



(f)

