

TASK 1: Name the special segment and its POC.

a) Where should dad stand to block the pass of the soccer ball of the boys?

incenter

b) If dad was going to do man to man marking instead of blocking passes, where should he stand?

circumcenter

OBJECTIVE 1: Midsegment Criteria

Requirements:

- The midsegment must be parallel to the base it does not bisect
- The midsegment connects the midpoints of the two sides it is not parallel
- The midsegment length will be half the length of the side it is parallel too

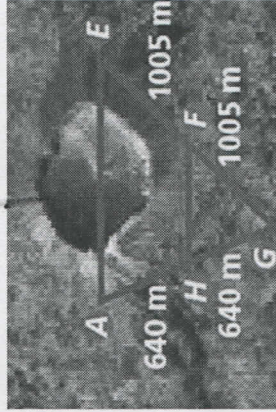
TASK 2:

a) What other information is needed to determine if \overline{HF} is a midsegment?

$\overline{HF} \parallel \overline{AE} \quad \& \quad \frac{1}{2}AE = HF$

b) How many meters wide is the crater if $HF = 775$ m?

$2(HF) = AE$
 $AE = 2(775) = \boxed{1550m}$

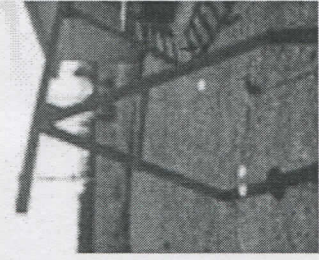


OBJECTIVE 2: Real-World Application

TASK 3:

Caleb's swing set has an A-frame support. The distance between the posts on the ground is 46 inches. What is the length of the support bar if it is a midsegment?

$\frac{46}{2} = \boxed{23in}$

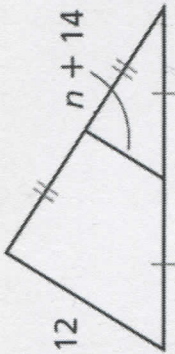


TASK 4:

Assume $(n + 14)$ is a midsegment. Find the value of n . Show all work.

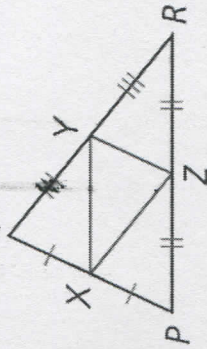
$2(n+14) = 3n+12$
 $2n+28 = 3n+12$
 $n=16$

$3n + 12$



OBJECTIVE 3: Midsegment Triangle

Every triangle has three midsegment, which form the midsegment triangle.

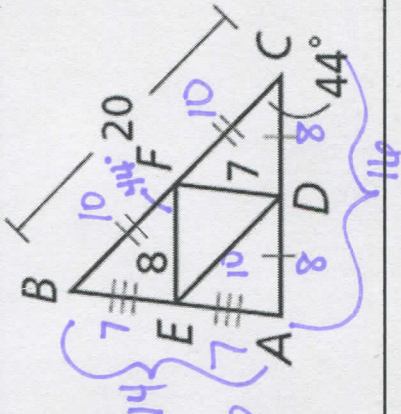


Midsegments: $\overline{XY}, \overline{YZ}, \overline{ZX}$
 Midsegment triangle: $\triangle XYZ$

TASK 5: Find each measure.

- a) $ED = 10u$
- b) $AB = 14u$
- c) $m\angle BFE = 44^\circ$
- d) Find the perimeter of each, $\triangle ABC$ & $\triangle DEF$.

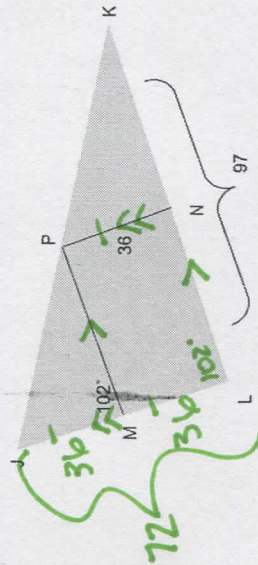
What can you conclude?
 $\triangle ABC = 50u$
 $\triangle DEF = 25$



TASK 6:

Given \overline{MP} & \overline{PN} are midsegments. Find JL , PM , and $m\angle MLK$.

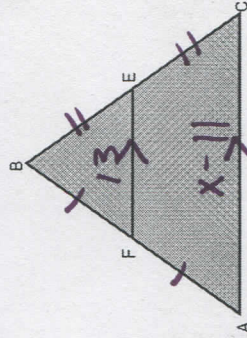
$JL = 72u$
 $PM = \frac{97}{2}u$
 $m\angle MLK = 102^\circ$



TASK 7:

Assume \overline{EF} is a midsegment of $\triangle ABC$. Find x when $AC = x - 11$ and $EF = 13$.

$2(13) = x - 11$
 $26 = x - 11$
 $37 = x$



Still need help with: