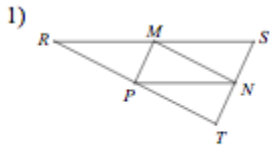
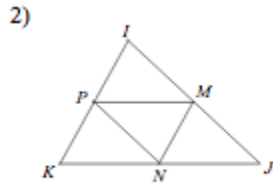


Midsegment, Median, Altitude

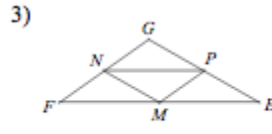
Bronze



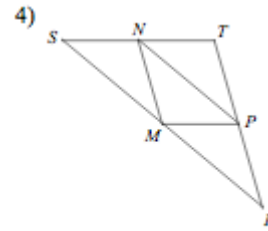
$\overline{RT} \parallel \underline{\hspace{1cm}}$



$\underline{\hspace{1cm}} \parallel \overline{JK}$

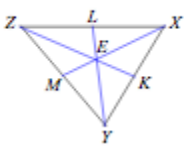


$\underline{\hspace{1cm}} \parallel \overline{EG}$

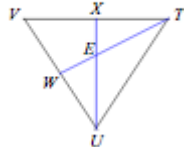


$\underline{\hspace{1cm}} \parallel \overline{NP}$

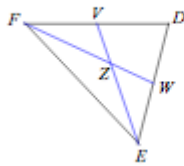
5) Find EK if $ZE = 14$



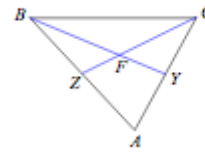
6) Find EX if $UE = 2$



7) Find FW if $FZ = x - 5$ and $FW = x - 3$

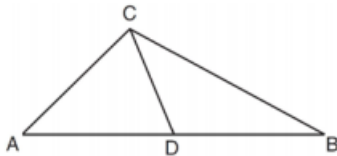


8) Find BY if $BY = 7x + 2$ and $FY = 2 + 2x$



Silver

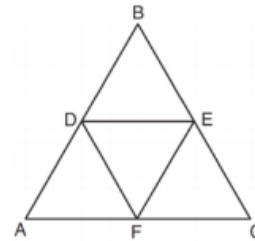
As shown in the diagram below, \overline{CD} is a median of $\triangle ABC$.



Which statement is *always* true?

- 1) $\overline{AD} \cong \overline{DB}$
- 2) $\overline{AC} \cong \overline{AD}$
- 3) $\angle ACD \cong \angle CDB$
- 4) $\angle BCD \cong \angle ACD$

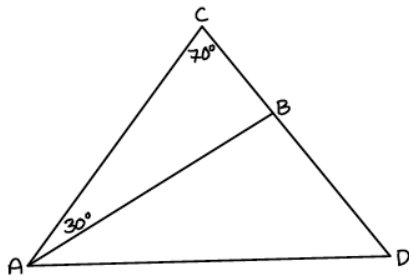
In the diagram below, the vertices of $\triangle DEF$ are the midpoints of the sides of equilateral triangle ABC , and the perimeter of $\triangle ABC$ is 36 cm.



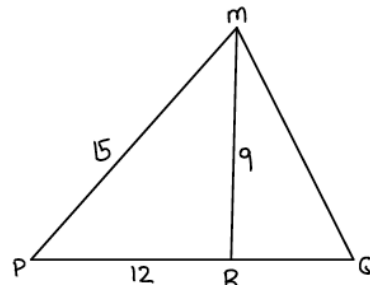
What is the length, in centimeters, of \overline{EF} ?

- 1) 6
- 2) 12
- 3) 18
- 4) 4

In the diagram below, $m\angle BCA = 70$ and $m\angle BAC = 30$. Determine if segment AB is an altitude.



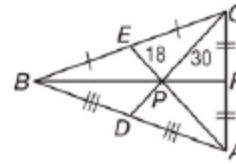
Using the side lengths of triangle MRP , Determine whether segment MR is an altitude.



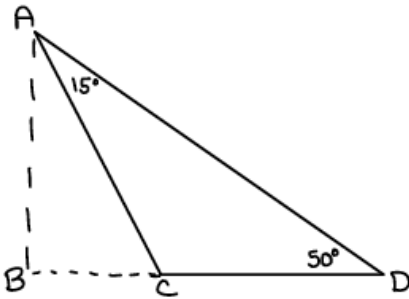
Gold

For numbers 1 – 6, in $\triangle ABC$, $CP = 30$, $EP = 18$, and $BF = 39$. Find each measure.

1. PD
2. FP
3. BP
4. CD
5. PA
6. EA

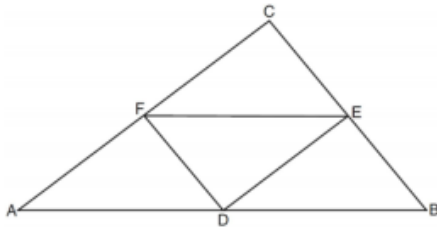


Given that segment AB is an altitude, determine the following:



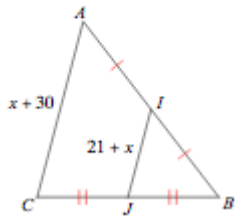
- (i) $m\angle ACD$
- (ii) $m\angle ACB$
- (iii) $m\angle BAC$

In the diagram of $\triangle ABC$ shown below, D is the midpoint of AB , E is the midpoint of BC , and F is the midpoint of AC .

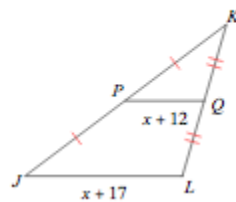


If $AB = 20$, $BC = 12$, and $AC = 16$, what is the perimeter of trapezoid $ABEF$?

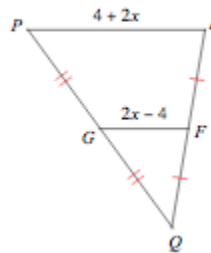
1) Find AC



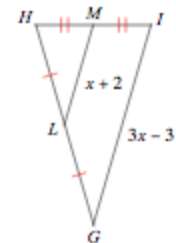
2) Find PQ



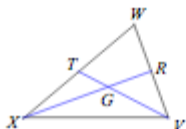
3) Find RP



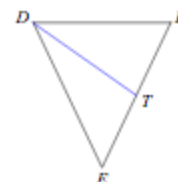
4) Find GI



5) Find GT if $VG = 4x + 2$ and $VT = -1 + 8x$



7) Find EF if $EF = 2x + 2$ and $TF = 2x - 3$



6) Find IM if $IL = 2x - 1$ and $IM = 4x - 4$

