

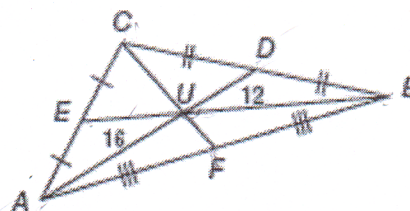
Name: key

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Station 3

In $\triangle ABC$, $AU = 16$, $BU = 12$, and $CF = 18$. Find each measure.

U is the Centroid.



1. UD

$$UD = 16 \div 2 = \boxed{8}$$

2. EU

$$EU = 12 \div 2 = \boxed{6}$$

3. CU

$$CU = \frac{2}{3} CF$$

$$CU = \frac{2}{3} (18) = \boxed{12}$$

4. AD

$$AD = AU + UD$$

$$= 16 + 8$$

$$\boxed{AD = 24}$$

5. UF

$$UF = \frac{1}{3} CF$$

$$UF = \frac{1}{3} (18) = \boxed{6}$$

6. BE

$$BE = EU + UB$$

$$= 6 + 12$$

$$\boxed{BE = 18}$$