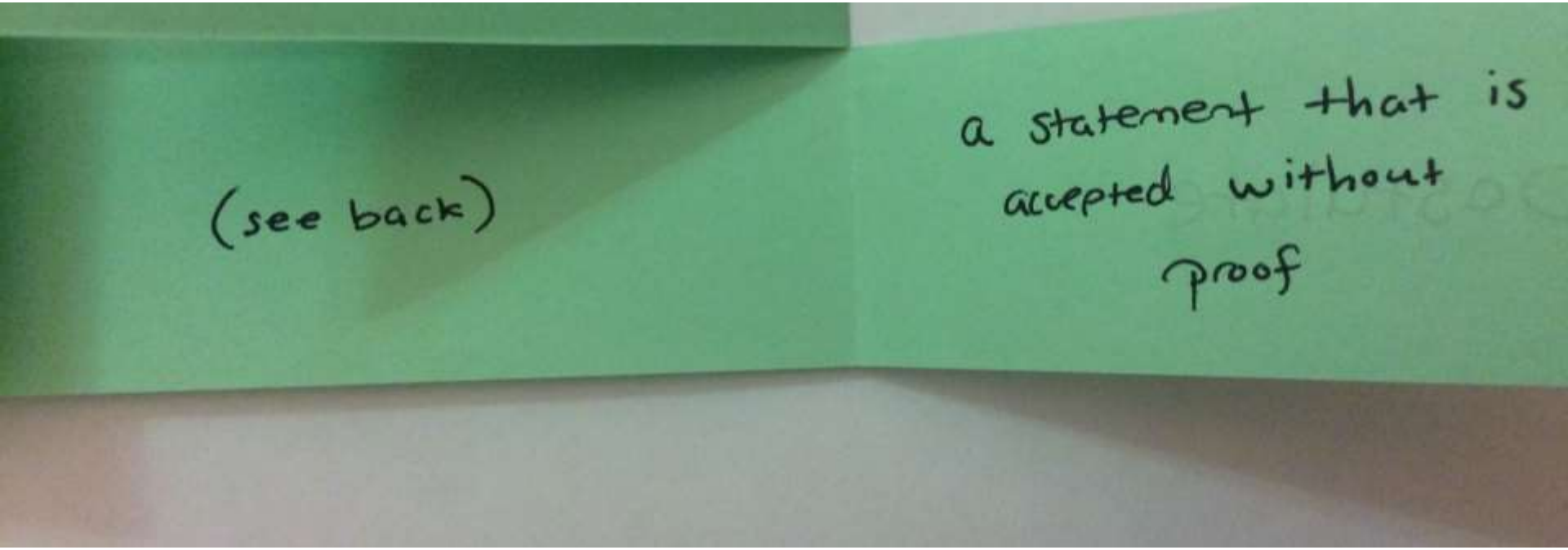
DO YOUR THURSDAY WARM UP

And have your homework out!

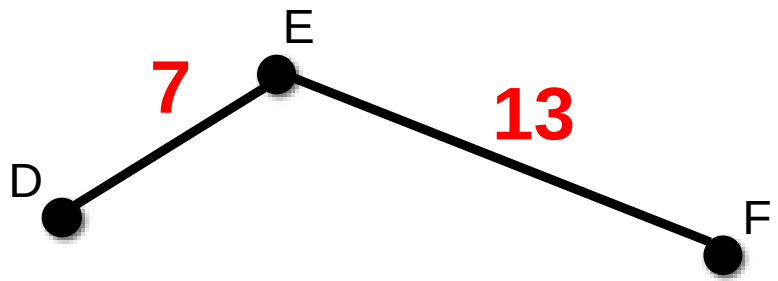
pg. 795- 796 (4-11)

Postulate



- What is *AC*?

- What is *DF*?



- **<u>If three points are collinear</u>, then the lengths of the two shorter segments equals the length of the larger segment.**

Segment Addition Postulate

pg. 777

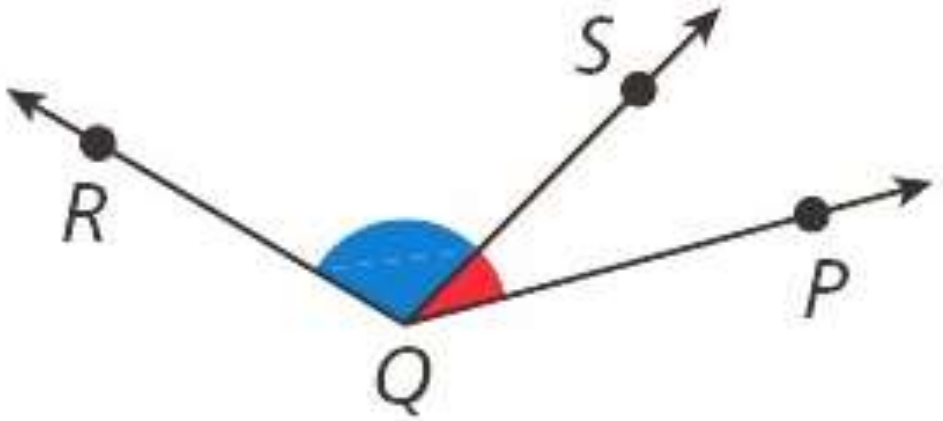
Let *A*, *B*, and *C* be collinear points. If *B* is between *A* and *C*, then $AB + BC = AC$

Notice: this means the length of segment $\overline{AB}$ plus the length of segment $\overline{BC}$ equals the length of segment $\overline{AC}$

Angle Addition Postulate

pg. 792

- If S is in the interior of $\angle PQR$, then $m\angle PQR = m\angle PQS + m\angle SQR$.



G is between F and H, $FG = 6$, and $FH = 11$. Find GH.

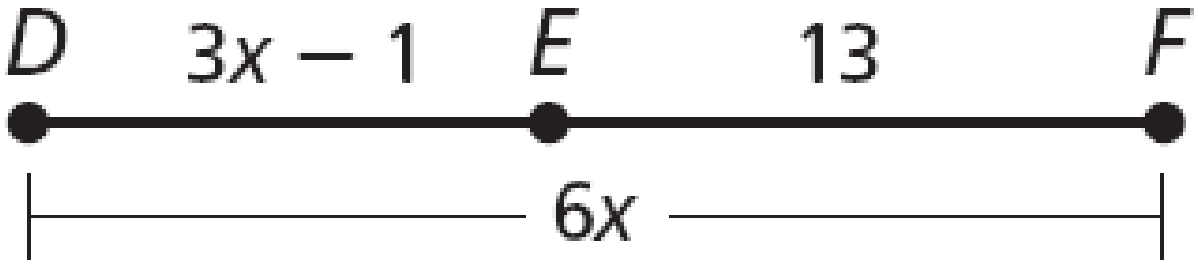
$$FH = FG + GH$$

$$11 = 6 + GH$$

$$-6 \quad -6$$

$$5 = GH$$

***E* is between *D* and *F*. Find *DF*.**

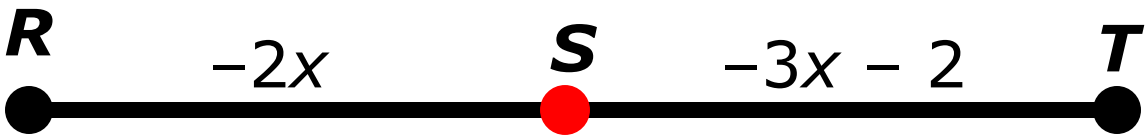


x = 4

DF = 24

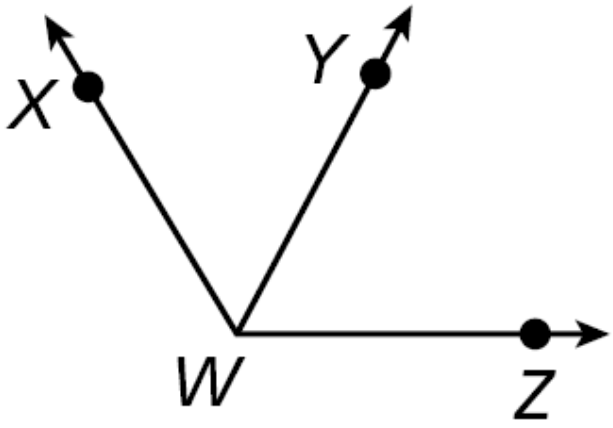
***S* is the midpoint of *RT*.**

Find *RS*, *ST*, and *RT*.



RS = 4 *ST* = 4 *RT* = 8

m∠*XWZ* = 121° and m∠*XWY* = 59° .
Find m∠*YWZ*.

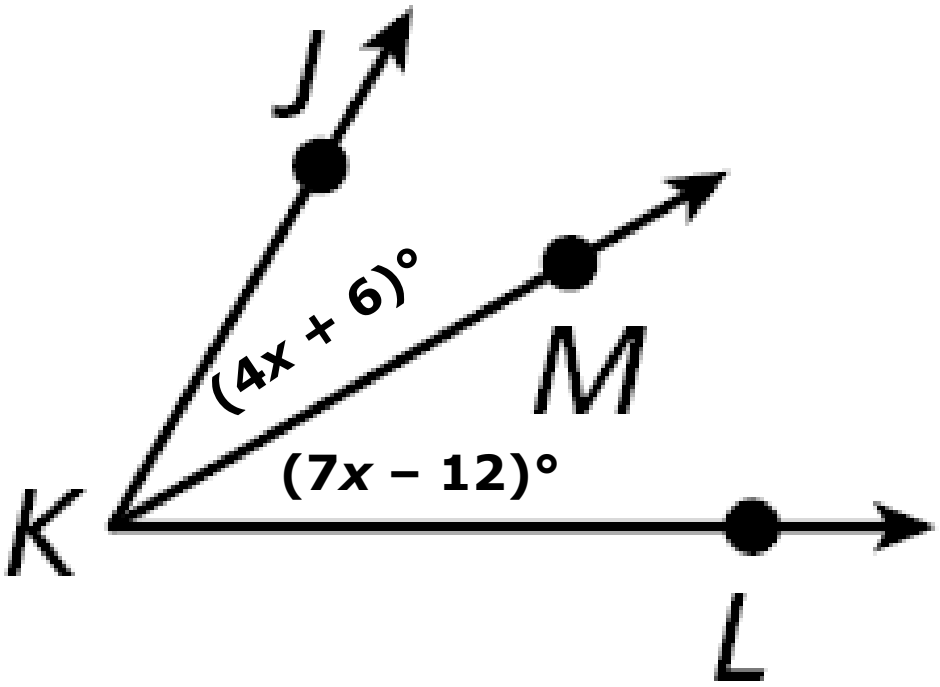


m∠*YWZ* = m∠*XWZ* – m∠*XWY* *∠ Add. Post.*

m∠*YWZ* = 121° – 59° *Substitute the given values.*

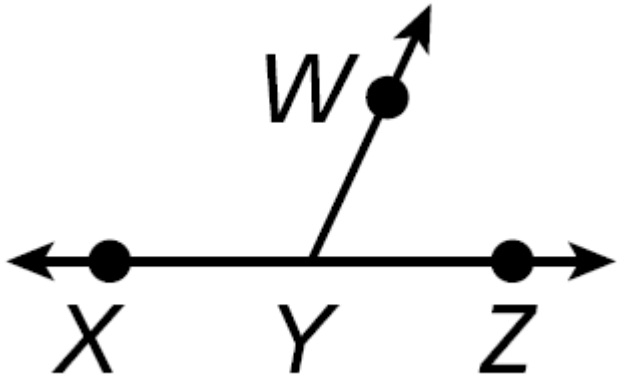
m∠*YWZ* = 62° *Subtract.*

$\overrightarrow{KM}$ **bisects** $\angle JKL$.
Find m$\angle JKM$.



m$\angle JKM$ **= 30°**

m∠*WYZ* = (2*x* – 5)° and m∠*XYW* = (3*x* + 10)°. Find the value of *x*.



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$\overrightarrow{BD}$ bisects $\angle ABC$, $m\angle ABD = \left(\frac{1}{2}y + 10\right)°$ and $m\angle DBC = (y + 4)°$. Find $m\angle ABC$.

32°

WORKSHEET