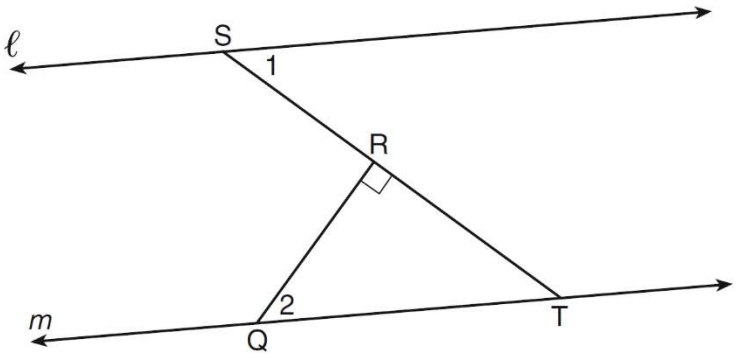
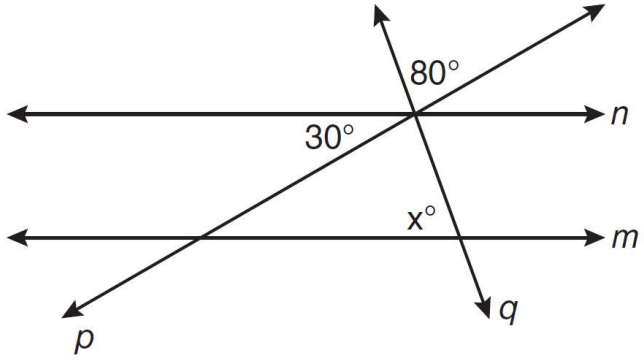
Name _____ Date _____
Mr. Schlansky Geometry

Parallel Lines With Triangles

1. In the diagram below, $\ell \parallel m$ and $\overline{QR} \perp \overline{ST}$
If $m\angle 1 = 63$, find $m\angle 2$.

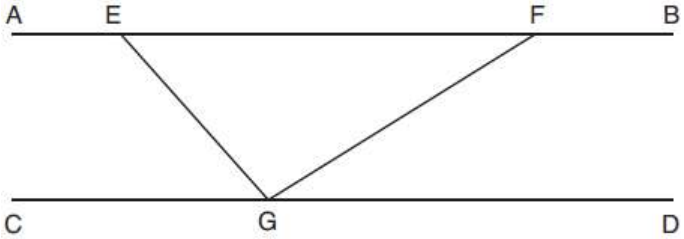


2. In the diagram below, lines *n* and *m* are cut by transversals *p* and *q*.
What value of *x* would make lines *n* and *m* parallel?

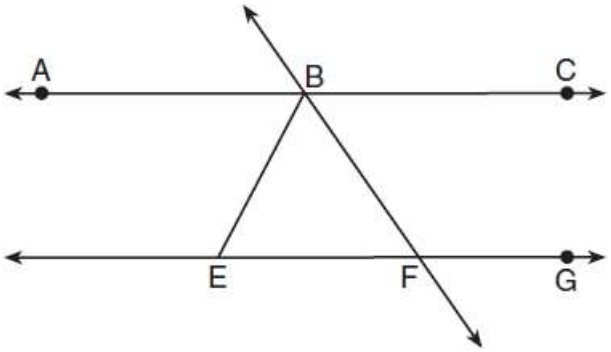


3. In the diagram below, $\overline{AEFB} \parallel \overline{CGD}$, and $\overline{GE}$ and $\overline{GF}$ are drawn.
If $m\angle EFG = 32°$ and $m\angle AEG = 137°$, what is $m\angle EGF$?

1) 11°
2) 43°
3) 75°
4) 105°

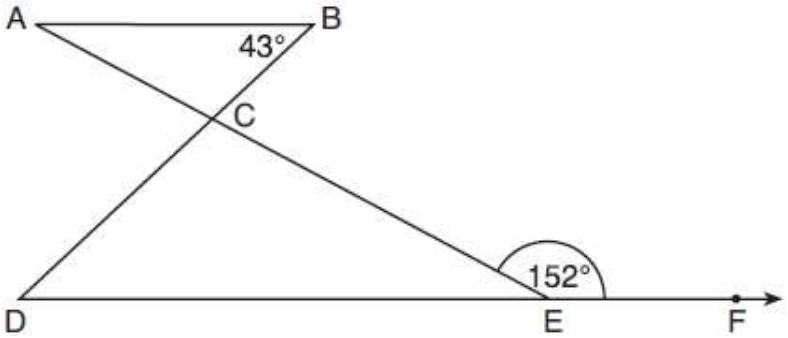


4. As shown in the diagram below, $\overleftrightarrow{ABC} \parallel \overleftrightarrow{EFG}$ and $\overline{BF} \cong \overline{EF}$.
If $m\angle CBF = 42.5°$, find $m\angle EBF$.



5. In the diagram below, $\overline{AB} \parallel \overrightarrow{DEF}$, $\overline{AE}$ and $\overline{BD}$ intersect at C, $m\angle B = 43°$, and $m\angle CEF = 152°$.
Which statement is true?

1) $m\angle D = 28°$
2) $m\angle A = 43°$
3) $m\angle ACD = 71°$
4) $m\angle BCE = 109°$



6. In the diagram below, $\overline{DE}$ divides $\overline{AB}$ and $\overline{AC}$ proportionally, $m\angle C = 26°$, $m\angle A = 82°$, and $\overline{DF}$ bisects $\angle BDE$.
The measure of angle DFB is

1) 36°
2) 54°
3) 72°
4) 82°