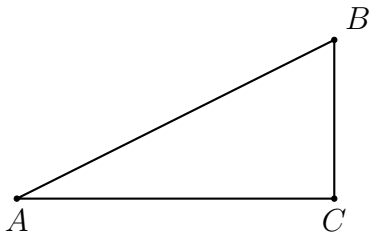
BECA / Dr. Huson / 10th Grade Geometry Name: .
28 November 2018

Do Now: Triangle angle relationships

1. Express the result to the nearest thousandth.

   (a) $\cos 60° =$ (b) $\cos 27° =$

2. Given right $\triangle ABC$ with $m\angle C = 90°$.

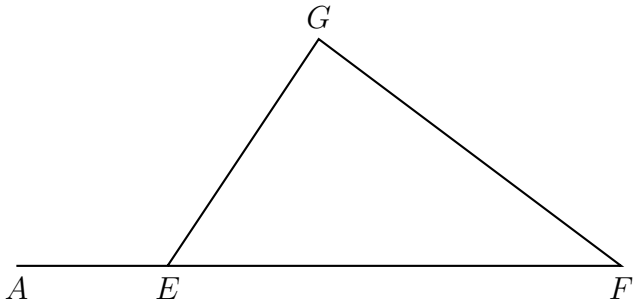


   (a) Given $BC = 4.5, AB = 10$. Express $\sin A$ as a ratio.

   (b) Given $m\angle A = 27°$. Find $m\angle B$

   (c) Find AC

3. Given $\triangle EFG$ with $\overline{EF}$ extended to A. If $m\angle F = 40°$ and $m\angle AEG = 140°$, what is $m\angle EGF$?



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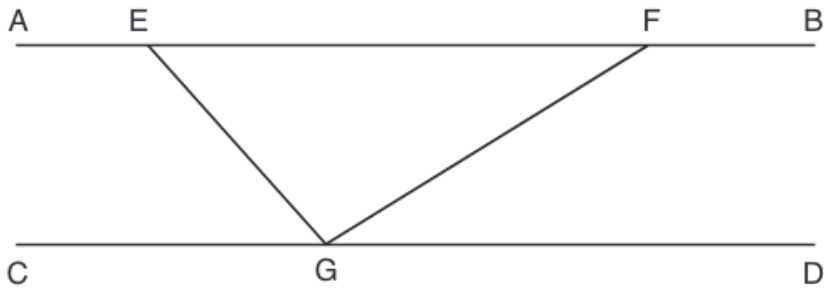
4. Spicy: Regents problem

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°

5. Construct a triangle congruent to $\triangle ABC$ using the SSS postulate.