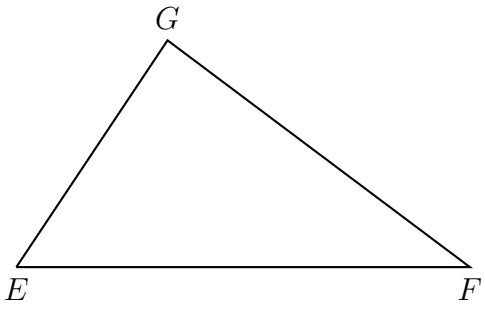
Do Now: Angle relationships

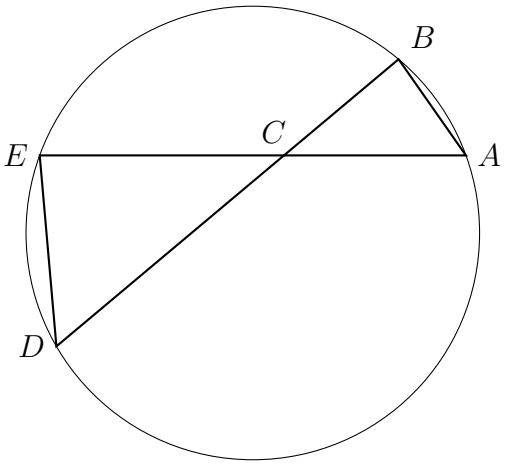
1. Given $\triangle EFG$ with $m\angle E = 5x°$, $m\angle F = 40°$ and $m\angle G = 3x + 60°$, find x.



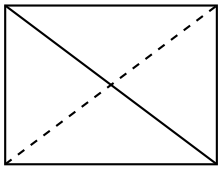
2. In the diagram below, the chords $\overline{AE}$ and $\overline{BD}$ intersect at C, with $m\angle ACB = 6x - 5$, $m\angle DCE = 3x + 10$.

   (a) Justify $\angle ACB \cong \angle DCE$.

   (b) Find x.



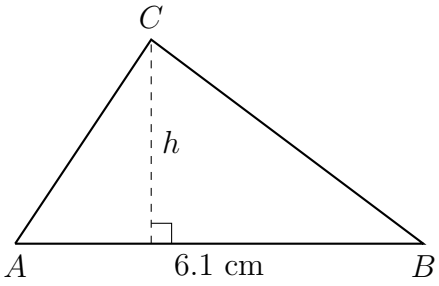
3. The figure shows a rectangle (not a square).



Which transformations carries the rectangle onto itself? Mark each True or False.

(a) A clockwise rotation of 90° about the intersection of the diagonals	True	False
(b) A clockwise rotation of 180° about the intersection of the diagonals	True	False
(c) A reflection over the solid diagonal	True	False
(d) A reflection over the dashed diagonal	True	False

4. Find the area of $\triangle ABC$, $Area = \frac{1}{2}bh$. The altitude h of the triangle is 3 centimeters and the base $AB = 6.1$ cm.



5. Find the volume of a pyramid ($V = \frac{1}{3}Bh$) having a height of 5 feet and with a square base having side lengths of 2 feet. Express your result to the *nearest cubic foot*.