Measuring Interior Angles

Short-answer questions involving length, angle, and area.

Geogebra link: `https://tube.geogebra.org/m/zrapvzpz`

Problem   1 *Measure the interior angles of quadrilateral $ABCD$ above.*

(a) $m\angle A = \boxed{31}$ *degrees.*

(b) $m\angle B = \boxed{26.74}$ *degrees.*

(c) $m\angle C = \boxed{281}$ *degrees.*

(d) $m\angle D = \boxed{21.25}$ *degrees.*

(e) $m\angle A + m\angle B + m\angle C + m\angle D = \boxed{360 degrees}$.

Hint: *Be sure to measure interior angle as an amount of turning between the two sides of the angle.*

Problem   2 *Use the measurements from the previous problem, to computer the measure of the marked angle below.*
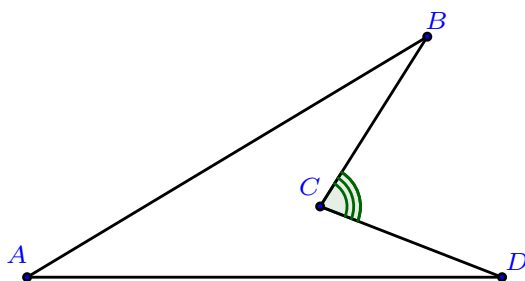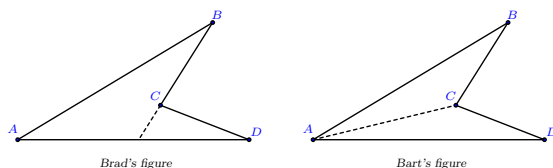

The marked angle should measure $\boxed{79}$ *degrees.*

Problem **3** *In order to explain why the sum of the interior angles should be* $360°$, *Bart and Brad each* triangulated *the figure as shown below.*

Brad's figure   Bart's figure

Multiple Choice:

- (a) *They are both correct.*

- (b) *Only Brad is correct.*

- (c) *Only Bart is correct.* ✓

- (d) *Neither of them are correct.*

Explain your reasoning.

Free Response: **Hint:**   *In Bart's triangulation, the interior angles of the quadrilateral are composed only of interior angles of the triangular pieces. But in Brad's figure, a new angle has been created between A and D, and part of interior angle C has been lost.*