

NAME: _____

1. 010025a, P.I. G.G.39

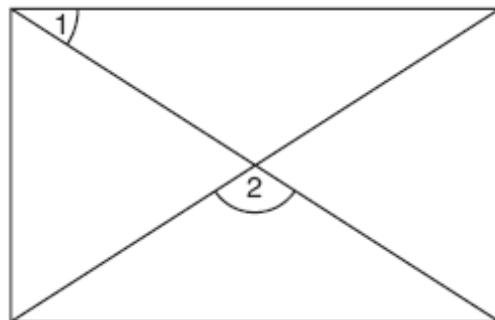
Al says, "If $ABCD$ is a parallelogram, then $ABCD$ is a rectangle." Sketch a quadrilateral $ABCD$ that shows that Al's statement is not always true. Your sketch must show the length of each side and the measure of each angle for the quadrilateral you draw.

2. 010533a, P.I. G.G.39

In rectangle $ABCD$, $AC = 3x + 15$ and $BD = 4x - 5$. Find the length of \overline{AC} .

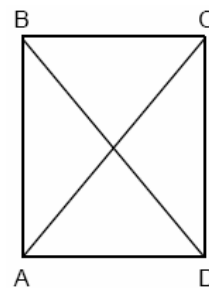
3. 010835a, P.I. G.G.39

As shown in the accompanying diagram, a rectangular gate has two diagonal supports. If $m\angle 1 = 42$, what is $m\angle 2$?



4. 089909a, P.I. G.G.39

In the accompanying diagram of rectangle $ABCD$, $m\angle BAC = 3x + 4$ and $m\angle ACD = x + 28$.



What is $m\angle CAD$?

- [A] 37 [B] 12 [C] 40 [D] 50

[2] The student draws a parallelogram, which is not a rectangle, with four sides and four angles labeled, such as angles of 60, 120, 60, and 120 and sides of 4, 6, 4, and 6.

[1] A parallelogram or rhombus, not a square, is drawn, which does not have measures for all lengths or angles.

[0] Angles and/or lengths are not appropriate for a parallelogram.

or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an

[1] obviously incorrect procedure.

[2] 75, and appropriate work is shown, such as $3x + 15 = 4x - 5$.

[1] Appropriate work is shown, but one computational error is made.

or [1] Appropriate work is shown, but one conceptual error is made, such as showing

\overline{AC} and \overline{BD} as congruent opposite sides.

or [1] A correct equation is written, but no further correct work is shown.

or [1] A correct equation is written and solved for x , but the length of \overline{AC} is not found.

or [1] An incorrect equation of equal difficulty, such as $3x + 15 + 4x - 5 = 180$, is solved appropriately, and an appropriate length of \overline{AC} is found.

or [1] 75, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[2] incorrect procedure.

[2] 96, and appropriate work is shown, such as an algebraic solution or a correctly labeled diagram.

[1] Appropriate work is shown, but one computational error is made.

or [1] Appropriate work is shown, but one conceptual error is made.

or [1] 96, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[3] incorrect procedure.

[4] D
