

Name _____

Date _____

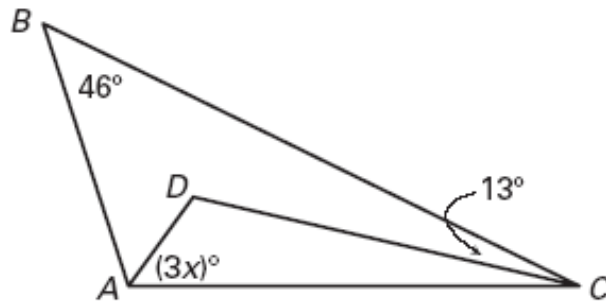
Open-ended Task: Geometry Chapter 4

Directions:

To receive full credit you must do the following:

1. Show OR describe each step of your work, even if you did it in your head (“mental math”) or used a calculator,
AND
2. Write an explanation stating the mathematical reason(s) why you chose each of your steps.

Question: In the diagram below, AD bisects $\angle BAC$ and CD bisects $\angle BCA$.



A. Use the definition of angle bisector to find the measure of $\angle DCA$

B. Write an expression for the measure of $\angle DAB$

C. Write an equation for the sum of the angle measures of $\triangle ABC$ using the triangle sum theorem

D. Solve the equation for x .

