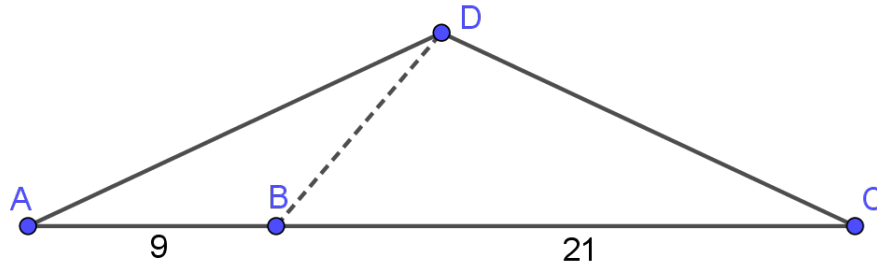




PROBLEM OF THE WEEK #5
(Fall 2023)

Point B is on segment \overline{AC} with $AB = 9$ and $BC = 21$. Point D is not on \overline{AC} , and $AD = CD$. Assuming that AD and BD are integers, what could be the perimeter of $\triangle ACD$?



[Please fully explain your answer.]

Email solutions to swensonj@uwplatt.edu by 2:00pm on Wednesday, October 18, 2023.

Every week, the best solution submitted earns a \$10 Platteville gift certificate; the top scorer each semester also wins a cash award. Good luck!

You can always see the Problem of the Week (and complete rules) online at:

<http://uwpmath.weebly.com/>