This task is to help me know what you know and how I can help you. Don't worry. Try your best.

Name **Student C**

An equation is shown, where *a*, *b*, and *c* are integers. $y = a|x + b| + c$

Kyle claims that this equation will always have two roots.

Sandy claims that this equation will always have zero roots.

Using integers from -5 to 5 create an equation that supports Kyle's claim and describe the effects of the parameters *a*, *b*, and *c* on the shape and position of the graph.

$y = \boxed{3}\,|x + \boxed{2}| + \boxed{-5}$

The graph of this equation opens up (the a is positive)
& has vertex (-2, -5). It looks like this
So this equation has two roots.
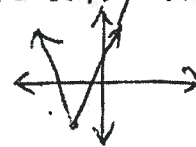
Using integers from -5 to 5 create an equation that supports Sandy's claim and describe the effects of the parameters *a*, *b*, and *c* on the shape and position of the graph.

$y = \boxed{-3}\,|x + \boxed{2}| + \boxed{-5}$

The graph of this equation opens down (the a is negative)
It has vertex (-2, -5). If looks like this
It has zero roots.
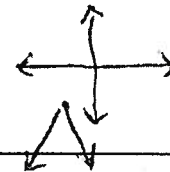
Using integers from -5 to 5 create an equation that disproves Kyle's and Sandy's claims and describe the effects of the parameters *a*, *b*, and *c* on the shape and position of the graph.

$y = \boxed{3}\,|x + \boxed{2}| + \boxed{0}$

The graph of this equation has vertex (-2, 0). It has
exactly one root