

Think

Doggie Land Kennel charges a fixed rate of \$25.00 and an extra \$40.00 for each night that you board your dog. Bark and Wag Kennel charges a fixed rate of \$40.00 and an extra \$35.00 for each night that you board your dog. How many nights would you have to board your dog for the cost of each kennel to be equal?

Anticipated Student Responses**Talk Idea**

Algebraic Equations

1. $C=25+40x$
2. $C=40+35x$
3. $25+40x=40+35x$

Talk Idea

Make a table for each Kennel and find out how much each day costs at each kennel until you find a day where they cost the same

Talk Idea

Guess and check.
Substitute numbers in until you find an answer.

(maybe also a graphing response-but I don't foresee that with the numbers given)

We Understand

We understand that there are different ways to solve this problem. We understand that we can use the information given to set up mathematical equations. To find the breakeven points for the costs of the two kennel, all we need to do is set the two costs equal to each other and solve for the independent variable.