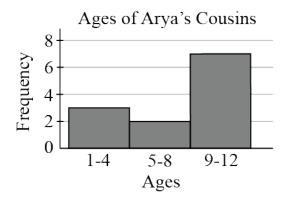
Problem of the Week Problem E Twelve Cousins

Arya has twelve cousins. She secretly writes their ages, as positive integers, on a piece of paper. She then tells you the mean (average) of the twelve ages is 8.75 and the median is 10. Finally, she draws you the following histogram to represent the ages of her cousins.



How many possibilities are there for the ages of Arya's twelve cousins?