## Pi Mu Epsilon Problem of the Month April 2020

Consider a data set of 10 numbers. Each of the numbers has one of four values: $-2,0,1$, or 6 . Suppose that the average of the numbers in the data set is 2 , the median of the numbers in the data set is 1 , and the mode of the numbers in the data set is 6 . Determine all possible data sets that fulfill the description above.

Problem of the Month Rules:
H Submissions must include a complete mathematical justification along with the answer.
H Submissions may only be made by individuals or groups of two and must be dated.
$\mathscr{H}$ Due date: April 27, 2020 before 5 p.m. to Dr. Phillip Poplin or Dr. David Shoenthal.

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