

## Problem 6: Guess My Number

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Find the 5-digit number worth 55 points given that the numbers 34567, 13579, 42160, and 33515 are worth 2,13,11, and 33 points respectively. Here, 10 points are awarded for each correctly placed digit, and one additional point for each digit that shows up in the secret number (but not necessarily placed in the correct position).

As always, show your work, fully explain and justify your answer. A solution mainly obtained by computers or calculators, or answers without proper justification will not be accepted.

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Posting Date 11/4/2018. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 5 pm on 11/16/18.