

MATH Club

Some interesting pigeon hole problems

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Abstract: The pigeon principle is a fundamental concept in combinatorics. Its applications are wide-reaching, extending well beyond the scope of combinatorics alone. The principle is summarized as follows: Given $n+1$ balls which we must distribute into n urns, there is at least one urn with two or more balls. A more general form states the following: Given n balls and k urns then there is at least one urn with at least $\lceil n/k \rceil$ balls.

We'll look at a few applications of this principle to problems appearing in competition mathematics, number theory, and geometry. By the end of this talk, you should have acquired a sense of the pigeonhole principle's importance and utility.

Pizza, while supplies last

Monday, November 6 at 1:00 PM in 636 SEO