

MATHCOUNTS[®] Problem of the Week Archive

Happy Pi Day – March 12, 2018

Problems

This Wednesday (3/14) was Pi Day. Here are a few questions in honor of the day.

If Celia ate $\frac{1}{4}$ of $\frac{2}{3}$ of $\frac{1}{2}$ of a pie, what fraction of the whole pie did she eat? Express your answer as a common fraction.

If the top surface of a particular slice of pie is a sector of a circle with a vertex angle measuring 20 degrees and the length of the arc is π units, what is the circumference of the top surface of the whole pie? Express your answer in terms of π .

What is the perimeter of the top surface of the remaining portion of the pie if only the slice described in the previous problem is removed? Express your answer in terms of π .