

# MATHCOUNTS<sup>®</sup> Problem of the Week Archive

## 2020 Chapter Competition Review – March 23, 2020

### Problems

*During the month of February, the 2020 Chapter Competitions took place across the country. Let's look back at a few of the problems our competitors encountered.*

#### 2020 Chapter Sprint Round, #9

Gladys draws two polygons. Her second polygon has two fewer than twice as many sides as her first polygon. If Gladys' first polygon is a triangle, how many sides does her second polygon have?

#### 2020 Chapter Target Round, #5

Addi, Subbi, Multi, and Divi are given two distinct nonzero numbers. Addi adds the two numbers. Subbi subtracts the lesser number from the greater. Multi multiplies the two numbers. Divi divides the greater number by the lesser. If the results obtained by Addi, Multi and Divi are the same, what is Subbi's result? Express your answer as a common fraction.

#### 2020 Chapter Team Round, #3

Marko's heart beats 72 times per minute during normal activity. It beats 65 times per minute during sleep, and 118 times per minute when Marko is exercising. During a 24-hour period, Marko slept from 10:00 p.m. until 5:00 a.m. and then exercised from 5:30 a.m. to 7:30 a.m. For the remaining time, he had normal activity. During that 24-hour period, how many times did Marko's heart beat?

#### 2020 Chapter Countdown Round, #64

Last night,  $\frac{5}{8}$  of the students in the dorm looked at Facebook,  $\frac{3}{8}$  looked at Twitter, and  $\frac{1}{4}$  looked at both. What fraction of the students looked at neither? Express your answer as a common fraction.