

Warm up Week 23 for all classes.

From AMC 10B 2016

Monday/Tuesday

If $n \heartsuit m = n^3 m^2$, what is $\frac{2 \heartsuit 4}{4 \heartsuit 2}$?

- (A) $\frac{1}{4}$ (B) $\frac{1}{2}$ (C) 1 (D) 2 (E) 4

Wednesday/Thursday

The mean age of Amanda's 4 cousins is 8, and their median age is 5. What is the sum of the ages of Amanda's youngest and oldest cousins?

- (A) 13 (B) 16 (C) 19 (D) 22 (E) 25

Friday

- 1) The area of a convex regular polygon is $192\sqrt{3} \text{ cm}^2$. The polygon has nine diagonals. Find the perimeter of the polygon, in centimeters. (**Source:** UH Geometry 2017 Q21)

Smackdown problem:

$$-3^2[6 \div 2(1 + 2)]$$