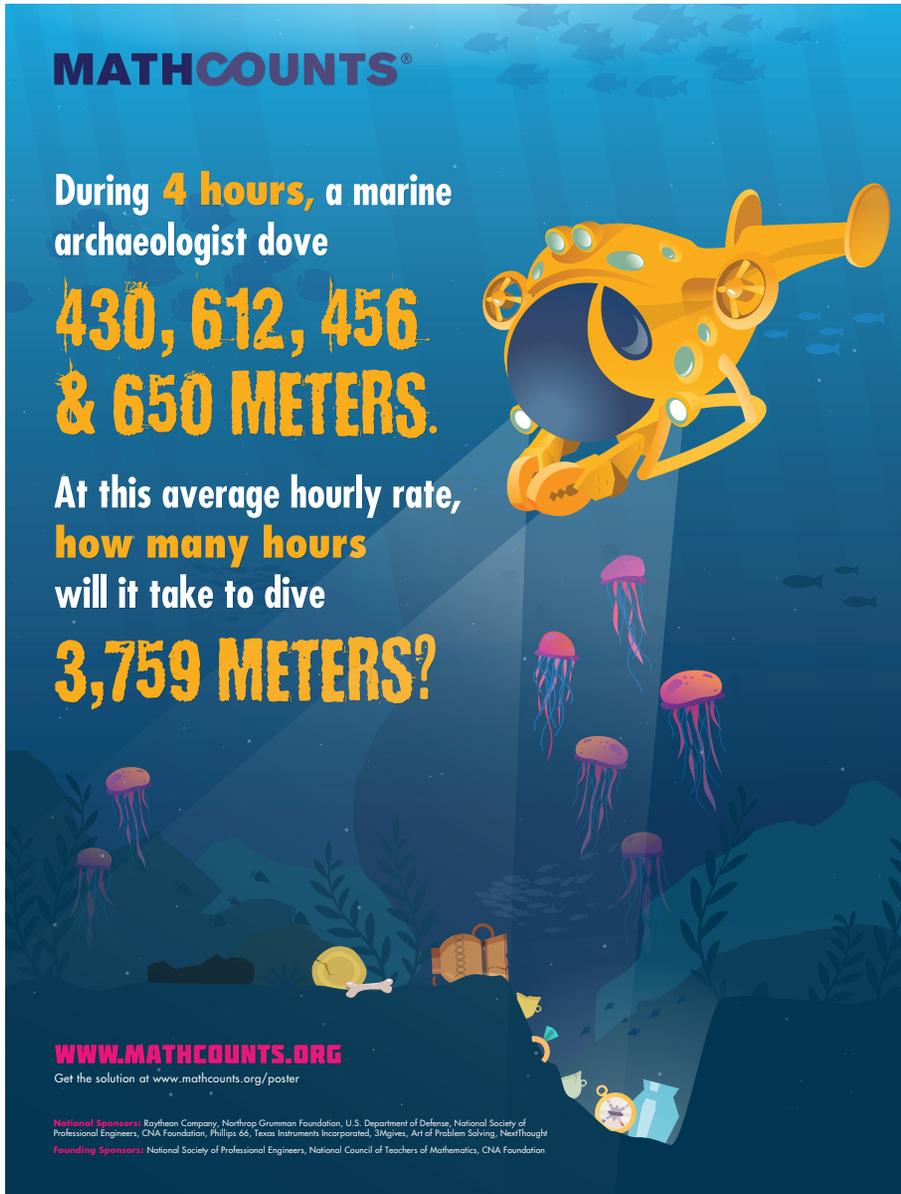


MATHCOUNTS 2019–2020 HB Poster Solution



MATHCOUNTS®

During **4 hours**, a marine archaeologist dove
**430, 612, 456
& 650 METERS.**

At this average hourly rate,
how many hours
will it take to dive
3,759 METERS?

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Method 1

Since the marine archaeologist dove a total of $430 + 612 + 456 + 650 = 2148$ meters in 4 hours, the average hourly rate is $2148 \div 4 = 537$ meters per hour. At that rate, to dive 3759 meters will take $3759 \div 537 = \mathbf{7}$ hours.

Method 2

The marine archaeologist dove a total of $430 + 612 + 456 + 650 = 2148$ meters in 4 hours. We are asked to determine the number of hours h that it will take to dive 3759 meters, at the same average hourly rate. We can set up the proportion $4 \text{ hours}/2148 \text{ meters} = h \text{ hours}/3179 \text{ meters}$. Multiplying both sides of this equation by 3179, we get $h = (4 \times 3179)/2148 = 15,036/2148 = \mathbf{7}$ hours.