Parents' Day – July 24, 2017

Problems & Solutions

We all know Mother's Day and Father's Day, but did you know Sunday, June 23rd was Parents' Day? If you forgot, then maybe you can solve these problems about parents to show yours how smart you are!

At the school fair, MATHCOUNTS parents sold chocolate and vanilla ice cream as a fund-raiser. Forty bowls of chocolate ice cream were sold for $2.15 per bowl. Bowls of vanilla ice cream sold for $1.90 each. How many bowls of ice cream were sold if the total amount of money collected was $158.20?

*Since 40 bowls of chocolate were sold at $2.15 each, the total about made from the chocolate ice cream sales was 40 × $2.15 = $86. This means the amount made from the vanilla sales was $158.20 – $86 = $72.20. Because vanilla bowls were $1.90 each, we know that $72.20 ÷ $1.90 = 38 bowls of vanilla were sold. So, the total number of bowls of ice cream sold was 40 + 38 = **78**.*

Lily is going to the movies to celebrate Parents' Day with her sister Abby and her mom and dad. Abby wants to sit beside her mom and Lily wants to sit beside her dad. In how many different ways can the family be seated in a single row that only has four seats?

*Let's use the letters L, A, M and D to represent Lily, Abby, mom and dad, respectively. The possible arrangements are as follows: AMLD, AMDL, MALD, MADL, DLMA, LDMA, DLAM and LDMA, for a total of **8** different arrangements.*

Samantha's mom is currently three times Samantha's age. Samantha's dad is 3 years older than her mom. The sum of all three of their ages is 80. How old is Samantha?

*If we say Samantha is S years old, then her mom is 3S years old and her dad is 3S + 3 years old. The sum of their ages is S + 3S + 3S + 3 = 80. So, we have, 7S + 3 = 80. Solving for S, we find that Samantha is **11** years old.*

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