

"Math Is Cool" Championships — 2019-20

4th Grade — February 28, 2020

Team Multiple Choice Contest

USE THE FOLLOWING INFORMATION TO SOLVE PROBLEMS #1 THROUGH #5.

Mamba Juice is a drink shop that sells smoothies, juices, fruit boosters, and drinkable yogurts in sizes small, medium, and large. The table lists prices by size and type.

Size	Smoothie	Juice	Fruit booster	Yogurt
Small	\$3.00	\$2.35	\$2.00	\$2.65
Medium	\$3.75	\$2.75	\$2.25	\$2.95
Large	\$4.50	\$3.15	\$2.50	\$3.25

1	How much money does Hannah need to purchase two large fruit boosters and one medium smoothie? A) \$8.50 B) \$9.00 C) \$8.65 D) \$8.75 E) Answer Not Given
2	Mamba Juice is offering a buy one, get one 50% off deal on any two drinks. Together, Hannah and her sister Rebecca buy two large smoothies with the deal. How much money did they spend? A) \$4.50 B) \$5.25 C) \$9.00 D) \$6.75 E) Answer Not Given
3	Rebecca is the Math Team Coach and she orders drinks for her whole team. How much cheaper would it be for her to order 21 medium juices than 21 medium yogurts? A) \$4.95 B) \$4.20 C) \$4.25 D) \$3.75 E) Answer Not Given
4	The ratio of fruit pieces to juice (measured in cups) in the smoothies is 2:1. If Mamba Juice used 40,892 cups of fruit pieces last year in their smoothies, how many cups of juice were used in smoothies last year? A) 20,228 B) 20,441 C) 20,446 D) 20,481 E) Answer Not Given
5	Hannah and three of her friends went to Mamba Juices. Each girl bought one drink. The prices of her friends' drinks were: \$3.00, \$3.75, and \$2.25. If the average price of all four of their drinks was \$3.00, what drink did Hannah order? A) Small smoothie B) Large fruit booster C) Medium juice D) Small yogurt E) Answer Not Given

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USE THE FOLLOWING INFORMATION TO SOLVE PROBLEMS #6 THROUGH #10.

Keeper of the Lost Cities Series by Shannon Messenger

Book #	Title	Release Date	Pages
1	Keeper of the Lost Cities	October 2, 2012	488
2	Exile	October 1, 2013	592
3	Everblaze	November 4, 2014	642
4	Neverseen	November 3, 2015	688
5	Lodestar	November 1, 2016	704
6	Nightfall	November 7, 2017	832
7	Flashback	November 6, 2018	880
8	Legacy	November 5, 2019	817
9	?????	?????, 2020	????

- 6** If the release date pattern continues, which of the following will be the most likely release date of Book 9 in the series?
- A) February 20, 2020 B) March 16, 2020 C) June 20, 2020
D) August 12, 2020 E) November 4, 2020
- 7** Shannon Messenger's books increased in length as the series grew. What is the difference between the average number of pages in her first 3 books, and the average number of pages in her most recent three books?
- A) 269 B) 304 C) 574 D) 843 E) Answer Not Given
- 8** If Alejandra reads 40 pages a day, how many days will it take her to read the first 3 Keeper of the Lost Cities books?
- A) 34 B) 40 C) 45 D) 52 E) Answer Not Given
- 9** Legacy was released how many days after the first Keeper of the Lost Cities book was released? Note: 2012 and 2016 were leap years.
- A) 2555 B) 2556 C) 2589 D) 2590 E) Answer Not Given
- 10** Leah can read 30 pages an hour. She was so excited to read Legacy that she read straight through until she finished, except for a 12-minute snack break after every 6 hours of reading. If Leah started reading Legacy at 9:00 AM. At what time did she finish reading?
- A) 1:02 PM B) 9:36 PM C) 11:54 PM D) 5:10 AM E) Answer Not Given