

"Math Is Cool" Championships — 2020-21

4th Grade — March 24, 2021

Sponsored by: Avista Utilities

Team Multiple Choice Contest

USE THE FOLLOWING INFORMATION TO SOLVE PROBLEMS #1 THROUGH #6.

Math-a-Mask Emporium Prices		
Mask Theme	Cost bought separately	Cost as a pack
Solid Color	\$11.00	4 for \$35.00
Flowers	\$12.00	3 for \$31.50
Math equations	\$12.50	4 for \$42.00
Sports Team	\$15.00	5 for \$85.00
Double Sided	\$17.00	6 for \$69.00
Designer Label	\$20.00	2 for \$30.00

- 1 What is the difference in dollars between the cheapest mask and the most expensive mask when purchased separately?
A) \$9.00 B) \$8.50 C) \$10.00 D) \$10.50 E) Answer not given.
- 2 Fumiko bought 1 pack of sports team masks, 3 packs of double-sided masks, and 3 packs of math masks. How many masks did she buy in total?
A) 40 masks B) 25 masks C) 20 masks D) 15 masks E) Answer not given.
- 3 Lillian bought two flowered masks, one sports team mask, and 3 solid color masks. How much did Lillian spend?
A) \$39 B) \$50 C) \$64 D) \$72 E) Answer not given.
- 4 Jose purchased one pack of designer masks and one math equation mask. He paid with a \$50 bill. How much money did Jose receive in change?
A) \$7.50 B) \$8.50 C) \$19.50 D) \$42.50 E) Answer not given.
- 5 Which mask pack gives the biggest discount per mask compared to the same type sold separately?
A) Solid Color B) Flowers C) Double-Sided D) Designer Label E) Answer not given.

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6 During the Mathemagic Mask Sale all single masks are 20% off and mask packs are 30% off. How much in dollars would 8 Math Equation masks and one double sided mask cost if purchased in the cheapest way possible during the sale?

A) \$70.70 B) \$72.40 C) \$90.90 D) \$93.60 E) Answer not given.

USE THE FOLLOWING INFORMATION TO SOLVE PROBLEMS #7 THROUGH #10.

10 Largest California Wildfires in History			
Size Rank	Name of Fire	Thousands of Acres Burned	Year of Fire
1	August Complex	1030	2020
2	Mendocino Complex	460	2018
3	SCU Lightning Complex	400	2020
4	Creek	380	2020
5	LNU Lightning Complex	360	2020
6	North Complex	320	2020
7	Thomas	280	2017
8	Cedar	270	2003
9	Rush	270	2012
10	Rim	?	2013

7 What percent of the ten largest California wildfires occurred during the year 2020?

A) 10% B) 50% C) 60% D) 90% E) Answer not given.

8 Rounded to the nearest ten-thousand, what is the average number of acres burned in the 5 largest California wildfires that occurred in the year 2020?

A) 380 thousand acres B) 410 thousand acres C) 480 thousand acres
 D) 500 thousand acres E) Answer not given.

9 Rounded to the nearest ten-thousand, the average of the 5 smallest fires on the list is 280 thousand acres burned. How many acres were burned in the Rim Fire of 2013?

A) 260 thousand acres B) 250 thousand acres C) 230 thousand acres
 D) 200 thousand acres E) Answer not given.

10	<p>Besides the 2020 fires listed in the table, an <u>additional 1,870 thousand acres</u> burned in California in the year 2020 that are not included in the table. The size ratio of the 2020 California wildfires to the 2019/20 Australian fires is 4:11. Using this ratio, approximately how many acres burned in Australia during the 2019/20 fire season, rounded to the nearest ten-thousand?</p> <p>A) 10 thousand acres B) 12,000 thousand acres C) 11,990 thousand acres D) 12,400 thousand acres E) Answer not given.</p>
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