

The Consumers' Dilemma

An update on The Farmer's Dilemma from ancient times

The Lackwicks, Jim and Karen, are very excited about their \$600 tax rebate check which is due in the mail any day. They plan to spend the full amount at heretoday.com, their favorite online shopping website. Heretoday is offering a Rebate Blowout Sale, and the only restriction is a 100 item limit for the shopping cart.

Jim and Karen were going to purchase three things in quantity (at least one of each): Carrot-Patch Kids for \$18 each; Bubble Bunnies for \$12 each; and Gummy Hares for \$3 apiece. Describe one way in which the Lackwicks can purchase a total of 100 items for exactly \$600.

Extra: Find all the ways the Lackwicks can make this purchase.

Solutions

One solution is 8, 20, and 72 Carrot Patch Kids, Bubble Bunnies and Gummy Hares, respectively. The number of Gummy Hares must be even because of the odd unit price.

Extra: Dropping 3 Kids and 2 Gummy Hares, we can pick up 5 Bunnies and keep the totals at 100 items and \$600. Or we can add 3 Kids and 2 Hares and drop 5 Bunnies. All solutions follow.

Carrot Patch Kids	2	5	8	11	14	17
Bubble Bunnies	30	25	20	15	10	5
Gummy Hares	68	70	72	74	76	78