Which Is the Better Deal?

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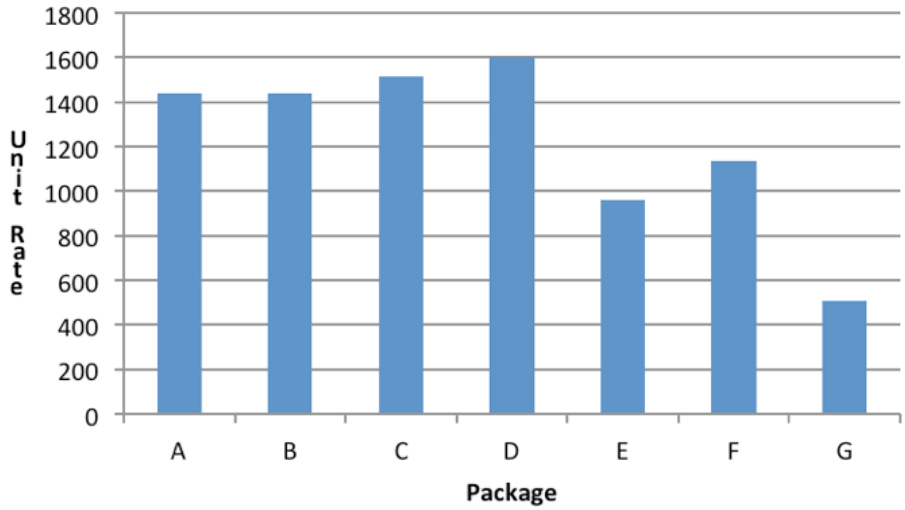
To compare the unit rates more easily, students could create a bar graph that shows the types of packages versus their unit rate. See the sample bar graph below.



	Number of Items per Pkg.	Volume per Item (mL)	Total Volume per Pkg. (mL)	Sale Price ($)	Unit Rate
A	6 bottles	710	6 × 710 = 4,260 mL	3 for 8.88	$\frac{3 \times 4,260}{8.88} = 1,439.19$ mL/$
B	12 cans	355	12 × 355 = 4,260	3 for 8.88	$\frac{3 \times 4,260}{8.88} = 1,439.19$ mL/$
C	1 bottle	1500	1,500	0.99 each	$\frac{1,500}{0.99} = 1,515.15$ mL/$
D	1 bottle	2000	2,000	4 for 5.00	$\frac{4 \times 2,000}{5.00} = 1,600$ mL/$
E	8 bottles	355	8 × 355 = 2,840	3 for 8.88	$\frac{3 \times 2,840}{8.88} = 959.46$ mL/$
F	24 cans	355	24 × 355 = 8,520	7.49 per case	$\frac{8,520}{7.49} = 1,137.52$ mL/$
G	8 cans	222	8 × 222 = 1,776	3.49 each	$\frac{1,776}{3.49} = 508.88$ mL/$

1. 700 × 30 = 21,000 mL needed

2. Best buy: package D (2 L bottles)

3. Worst Buy: package G (8 cans)

4. 21,000 ÷ 2,000 = 10.5 bottles; 11 bottles must be purchased

5. Total cost = $13.75. Eight bottles cost $10.00 (2 × $5.00); 3 bottles cost $3.75 ($5.00 × 4 = $1.25 per bottle; 3 × $1.25). *Note:* Assume that individual bottles can be purchased at the same price per bottle.

6. $20.00 – $13.75 = $6.25 remain