

KEY

Chapter 5

1. The Film Club raised \$90 with a bake sale. The members want to buy DVDs for their film library. Two members went online and found three stores that were having sales. They summarized the information in a table.

	Last Gasp	Greener Gadgets	Tech Things
1 DVD	\$12	\$8.95	\$7.95
3 DVDs	\$30	\$23.85	\$23.85
5 DVDs	\$40	\$34.75	\$39.75
10 DVDs	\$60	\$59.50	\$79.50
Shipping	\$1 per DVD	\$1.99 per DVD	Free
Handling	\$1 per DVD	\$0.99 per DVD	Free

- a. Find the unit rate of cost per DVD for each offer at each store. Make a table to summarize your data. SHOW WORK ON BACK!

	Last Gasp	Greener Gadgets	Tech Things
1 DVD	\$12 / DVD	\$8.95 / DVD	\$7.95 / DVD
3 DVDs	\$10 / DVD	\$7.95 / DVD	\$7.95 / DVD
5 DVDs	\$8 / DVD	\$6.95 / DVD	\$7.95 / DVD
10 DVDs	\$6 / DVD	\$5.95 / DVD	\$7.95 / DVD

- b. The club decides to buy 9 DVDs. The unit price for 9 DVDs is the same as the unit price for 5 DVDs at all three stores. Find the price of 9 DVDs at each store. Which store offers the best buy?

$$\text{Last Gasp: } \$8 / \text{DVD} \times 9 \text{ DVDs} = \$72$$

$$\text{Greener Gadgets: } \$6.95 / \text{DVD} \times 9 \text{ DVDs} = \$62.55$$

$$\text{Tech Things: } \$7.95 / \text{DVD} \times 9 \text{ DVDs} = \$71.55$$

Best buy at Greener Gadgets

- c. Now calculate the total cost, including shipping and handling, for 9 DVDs at the three stores. Which store offers the lowest total cost?

$$\text{LG: } \$72 + \$1(9) + \$1(9) = \$90$$

$$\text{GG: } \$62.55 + \$1.99(9) + \$0.99(9) = \$89.37$$

$$\text{TT: } \$71.55 + 0(9) + 0(9) = \$71.55$$

Lowest total cost at Tech Things