LESSON MAKER PRO

Purchase Choice Math

Compare the total cost and timing of different ways to buy.

HIGH SCHOOL · MA.912.FL.3

MA.912.FL.3 "Describe the advantages and disadvantages of short-term and long-term purchases."

NAME _____ DATE _____

COMPARE TOTAL COSTS

To compare purchase choices, find the total amount paid for each option. A longer payment plan can lower the payment due now but may cost more overall. Paying cash or using a shorter plan can cost less, but it requires more money sooner.

WORKED EXAMPLE

A game console costs $330 in cash or 8 monthly payments of $45. Which choice costs less, and by how much?

1. Find the payment-plan total: 8 x $45 = $360.
2. Compare the totals: $360 - $330 = $30.
3. The cash price is lower.

Answer: Paying $330 in cash costs $30 less.

PRACTICE 6 problems

1 A pair of headphones costs $240 in cash or 6 payments of $43. What is the total cost of the payment plan, and how much more does it cost than cash?

ANSWER _____

2 A bike costs $320 in cash. A payment plan requires a $75 down payment and 5 payments of $52. What is the payment-plan total, and which option costs less?

ANSWER _____

3 A tablet costs $225 in cash or 9 payments of $28. Find the total paid with the payment plan and the extra cost.

ANSWER _____

4 A store offers a camera for $410 in cash or 12 payments of $37. Which option has the lower total cost, and by how much?

ANSWER _____

5 A student can buy a camera for $180 in cash or 3 payments of $67. Which option costs less? State one disadvantage of the cheaper option.

ANSWER _____

6 A shorter plan has 4 payments of $88. A longer plan has 11 payments of $35. Which plan has the lower total cost, and how much higher is its monthly payment?

ANSWER _____

APPLY IT Show your work

1 Maya wants a laptop for school and creative projects. She can pay $540 in cash, or she can pay a $120 down payment plus 7 monthly payments of $64. How much does each choice cost? Which choice costs less, and what is one advantage of the payment plan?

WORK SPACE

ANSWER _____

2 Jordan is choosing how to buy a used car for a job and school commute. The car costs $1,800 in cash, or Jordan can pay $300 down and 15 biweekly payments of $110. Find the total cost of each option. How much would Jordan save by paying cash, and what is one disadvantage of paying cash?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A phone can be bought in one of three ways: pay $720 in cash, pay a $150 down payment plus 9 monthly payments of $67, or make 12 monthly payments of $61 with no down payment. You have $100 available now and can pay no more than $65 each month. Which option fits your budget? Find its total cost and explain how much more it costs than the least-cost option.

WORK SPACE AND ANSWER

ANSWER KEY

Purchase Choice Math

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A pair of headphones costs $240 in cash or 6 payments of $43. What is the total cost of the payment plan, and how much more does it cost than cash?	**$258 total, which is $18 more than cash.**
2	A bike costs $320 in cash. A payment plan requires a $75 down payment and 5 payments of $52. What is the payment-plan total, and which option costs less?	**The payment-plan total is $335. Paying cash costs $15 less.**
3	A tablet costs $225 in cash or 9 payments of $28. Find the total paid with the payment plan and the extra cost.	**The payment-plan total is $252, so it costs $27 more than cash.**
4	A store offers a camera for $410 in cash or 12 payments of $37. Which option has the lower total cost, and by how much?	**Paying $410 in cash has the lower total cost by $34.**
5	A student can buy a camera for $180 in cash or 3 payments of $67. Which option costs less? State one disadvantage of the cheaper option.	**Cash costs less, $180 compared with $201. A disadvantage is that the full $180 must be paid at the time of purchase.**
6	A shorter plan has 4 payments of $88. A longer plan has 11 payments of $35. Which plan has the lower total cost, and how much higher is its monthly payment?	**The shorter plan costs less, $352 compared with $385. Its monthly payment is $53 higher.**

PART 2 · APPLY IT

1. **Cash costs $540. The payment plan costs $568, so cash costs $28 less. An advantage of the payment plan is that Maya pays less money at the start and can use the laptop sooner.** Compute the plan total: $120 + 7 x $64 = $568. Compare $568 with $540, then identify the lower upfront cost as an advantage of the plan.
2. **Cash costs $1,800. The payment plan costs $1,950, so paying cash saves $150. A disadvantage of paying cash is that Jordan must have the full $1,800 available right away.** Compute the plan total: $300 + 15 x $110 = $1,950. Subtract $1,800 from $1,950 to find the savings from cash.

CHALLENGE

The 12-payment option fits the budget because it needs no down payment and costs $61 per month. Its total cost is $732. The least-cost option is $720 cash, so the budget-fitting option costs $12 more.

Accept equivalent currency notation and correctly computed totals. For stated advantages or disadvantages, accept any accurate statement about lower upfront cost, higher total cost, or needing more money immediately.