LESSON MAKER PRO

Payment Plan Math

Use payment plans to find the real price.

HIGH SCHOOL · MA.912.FL.3.8

MA.912.FL.3.8 "Calculate using spreadsheets and other technology the total cost of purchasing consumer durables over time given different monthly payments, down payments, financing options and fees."

NAME _____ DATE _____

FIND THE TOTAL COST

To find the total cost of a financed purchase, add the down payment, all monthly payments, and any fees. In a spreadsheet, use the formula =down payment+(monthly payment*number of months)+fees. A lower monthly payment can cost more if the plan lasts longer or has higher fees.

WORKED EXAMPLE

A smart watch requires a $125 down payment, 14 monthly payments of $36, and a $19 financing fee. Find the total cost.

1. 14 x 36 = 504
2. 125 + 504 = 629
3. 629 + 19 = 648

Answer: $648

PRACTICE 6 problems

1 Wireless headphones require an $84 down payment, 7 monthly payments of $43, and a $16 fee. Find the total cost.

ANSWER _____

2 A desk requires a $132 down payment, 9 monthly payments of $48, and a $21 fee. Find the total cost.

ANSWER _____

3 A gaming chair requires a $96 down payment, 4 monthly payments of $68, and an $11 fee. Find the total cost.

ANSWER _____

4 Compare two plans for a monitor. Store A requires $72 down, 6 monthly payments of $59, and a $13 fee. Store B requires $72 down, 10 monthly payments of $39, and a $25 fee. Find both total costs and identify the lower-cost plan.

ANSWER _____

5 A tablet plan has no down payment, 15 monthly payments of $34, and a $20 fee. Find the total cost.

ANSWER _____

6 A washing machine requires a $160 down payment, 5 monthly payments of $74, and a $28 fee. Find the total cost.

ANSWER _____

APPLY IT Show your work

1 Jordan wants an electric scooter for traveling to school and work. In a spreadsheet, Jordan compares two financing plans. The short plan requires $215 down, 8 monthly payments of $88, and a $27 fee. The long plan requires $215 down, 16 monthly payments of $53, and a $61 fee. Find each total cost. Which plan costs less, and by how much?

WORK SPACE

ANSWER _____

2 Maya is buying a video camera to record auditions and school events. An online store offers a plan with $175 down, 11 monthly payments of $57, and a $23 fee. A local store offers a plan with $95 down, 7 monthly payments of $96, and a $31 fee. Find each total cost and choose the cheaper plan.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A digital piano has two financing plans. Plan A requires $286 down, 12 monthly payments of $55, and a $44 fee. Plan B requires $286 down, 8 monthly payments of x dollars, and a $32 fee. What must x be for both plans to have the same total cost? Write an equation and solve.

WORK SPACE AND ANSWER

ANSWER KEY

Payment Plan Math

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Wireless headphones require an $84 down payment, 7 monthly payments of $43, and a $16 fee. Find the total cost.	**$401**
2	A desk requires a $132 down payment, 9 monthly payments of $48, and a $21 fee. Find the total cost.	**$585**
3	A gaming chair requires a $96 down payment, 4 monthly payments of $68, and an $11 fee. Find the total cost.	**$379**
4	Compare two plans for a monitor. Store A requires $72 down, 6 monthly payments of $59, and a $13 fee. Store B requires $72 down, 10 monthly payments of $39, and a $25 fee. Find both total costs and identify the lower-cost plan.	**Store A: $439. Store B: $487. Store A costs $48 less.**
5	A tablet plan has no down payment, 15 monthly payments of $34, and a $20 fee. Find the total cost.	**$530**
6	A washing machine requires a $160 down payment, 5 monthly payments of $74, and a $28 fee. Find the total cost.	**$558**

PART 2 · APPLY IT

1. **Short plan: $946. Long plan: $1,124. The short plan costs $178 less.** Multiply each monthly payment by its number of months, then add the down payment and fee. Compare $946 and $1,124.
2. **Online store: $825. Local store: $798. The local store plan is cheaper by $27.** For each store, add the down payment, the total of all monthly payments, and the fee. Subtract $798 from $825 to find the difference.

CHALLENGE

286 + 12(55) + 44 = 286 + 8x + 32, so x = $84 per month.

Accept equivalent calculation expressions and totals written with or without dollar signs. For comparison items, students should state both totals and the correct cost difference.