LESSON MAKER PRO

Home or Rent?

Compare home equity with invested rental savings.

HIGH SCHOOL · MM.FPM.A.7.c

MM.FPM.A.7.c "Analyze the financial consequence of buying a home (mortgage payments vs. potentially increasing resale value) versus investing the money saved when renting, assuming that renting is the less expensive option."

NAME _____ DATE _____

COMPARE WHAT YOU OWN

Home equity is the resale price minus the mortgage balance still owed. If rent costs less than the mortgage, a renter can invest the down payment and the yearly savings. Compare home equity with the investment's value, assuming no taxes or fees and that each invested dollar earns the stated total gain by the sale date.

WORKED EXAMPLE

After 3 years, a home sells for $160,000 with $120,000 left on the mortgage. The renter invests a $9,000 down payment and the yearly housing savings shown. Each invested dollar earns a total gain of 25%. Which option has more value?

YEARLY HOUSING COST

Option	Cost
Mortgage	$21,000
Rent	$17,000

1. Yearly savings: $21,000 - $17,000 = $4,000.
2. Total invested: $9,000 + 3 × $4,000 = $21,000.
3. Investment value: $21,000 × 1.25 = $26,250.
4. Home equity: $160,000 - $120,000 = $40,000.

Answer: The home has $13,750 more value.

PRACTICE 4 problems

1 A mortgage costs $18,000 a year, and rent costs $15,000. How much could a renter invest from housing savings over 4 years?

ANSWER _____

2 A renter invests a $12,000 down payment and $2,000 saved each year for 5 years. How much is invested before gains?

ANSWER _____

3 A home sells for $180,000 with $140,000 left on its mortgage. What is the owner's equity?

ANSWER _____

4 A renter invests $30,000, and each dollar earns a total gain of 20%. The owner has $34,000 in home equity. Which option has more value, and by how much?

ANSWER _____

APPLY IT Show your work

1 You are choosing a home near your first job. A mortgage costs $15,000 a year; rent costs $12,000. After 4 years, the home could sell for $130,000 with $105,000 still owed. If you rent, you invest an $8,000 down payment and the yearly savings. Each invested dollar earns 10% total. Which option has more value, and by how much?

WORK SPACE

ANSWER _____

2 You plan to live near a college for 5 years. A mortgage costs $19,000 a year; rent costs $15,000. The home could sell for $175,000 with $144,000 still owed. If you rent, you invest a $10,000 down payment and the yearly savings. Each invested dollar earns 20% total. Which option has more value, and by how much?

WORK SPACE

ANSWER _____

CHALLENGE One step up

For 5 years, a mortgage costs $22,000 a year and rent costs $18,000. A renter invests a $14,000 down payment and the yearly savings. Each invested dollar earns 20% total. If $150,000 remains on the mortgage, what resale price makes home equity equal the investment's value? Show your reasoning.

WORK SPACE AND ANSWER

Home or Rent?

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A mortgage costs $18,000 a year, and rent costs $15,000. How much could a renter invest from housing savings over 4 years?	**$12,000**
2	A renter invests a $12,000 down payment and $2,000 saved each year for 5 years. How much is invested before gains?	**$22,000**
3	A home sells for $180,000 with $140,000 left on its mortgage. What is the owner's equity?	**$40,000**
4	A renter invests $30,000, and each dollar earns a total gain of 20%. The owner has $34,000 in home equity. Which option has more value, and by how much?	**Renting has $2,000 more value.**

PART 2 · APPLY IT

1. **Buying has $3,000 more value.** Home equity is $130,000 - $105,000 = $25,000. The rental investment is [$8,000 + 4 × ($15,000 - $12,000)] × 1.10 = $22,000.
2. **Renting has $5,000 more value.** Home equity is $175,000 - $144,000 = $31,000. The rental investment is [$10,000 + 5 × ($19,000 - $15,000)] × 1.20 = $36,000.

CHALLENGE

$190,800. The investment is [$14,000 + 5 × ($22,000 - $18,000)] × 1.20 = $40,800. Adding the $150,000 mortgage balance gives the break-even resale price.

Accept comparisons stated as home equity versus investment value. All gains use the simplified assumption that every invested dollar earns the stated total percentage by the sale date.