Rent or Buy? The Housing Decision

Find an affordable home, model the mortgage, and decide whether renting or buying wins — and when.

Unit 7: Housing: Rent or Buy | 3–4 class periods | Pairs or small groups

Name(s) _____ Period ____ Due _____

Introduction

Rent or buy is one of the biggest financial decisions people make, and the right answer depends on time, prices, and personal plans. Your team will act as housing advisors for the Okafor-Reyes household.

> Nadia and Luis (combined gross income $108,000; car payment $380/month; savings $60,000) are deciding between renting a 2-bedroom for $1,950/month and buying a similar $345,000 condo in fictional Brookside. They might move for work in 3–7 years.

Learning goals

- Apply affordability guidelines.
- Calculate a mortgage payment and full monthly cost (PITI, PMI, maintenance).
- Estimate cash needed to close.
- Compare net costs of renting and buying with equity and opportunity cost.
- Recommend and justify a decision under uncertainty.

Supporting documents and data

Listings (fictional)

	Rent: Brookside Commons Apt 4B	Buy: 18 Willow Ct condo
Price / rent	$1,950/month, +3%/yr expected	$345,000
Deposit / down	$1,950 security deposit	10% down ($34,500)
Monthly extras	Renters insurance $15	Taxes 1.2%/yr, insurance $1,600/yr, PMI 0.7%/yr of loan
Other	Landlord handles repairs	Maintenance ≈ 1% of value/yr; closing 3%; selling 6%

Market assumptions (adjust in Task 4)

Assumption	Base case
Mortgage rate	6.75%, 30-year fixed
Home appreciation	3% per year
Rent growth	3% per year
Return on invested cash	5% per year

Tasks

Task 1: Affordability

1. Compute the 28% housing limit and 36% total-debt limit.
2. Is the rent affordable? Is the estimated ownership cost?

Deliverable: Affordability check.

Task 2: Mortgage and monthly cost

1. Compute the loan, P&I, taxes, insurance, PMI, and PITI.
2. Add maintenance to find the true monthly cost of owning.
3. Compute cash needed to close.

Deliverable: Monthly cost breakdown.

Task 3: Net cost comparison

1. For 3, 7, and 12 years, compute total rent and the net cost of buying (outflows – equity at sale + opportunity cost).
2. Find the approximate break-even year.

Deliverable: Rent vs. buy table + graph.

Task 4: Stress test

1. Re-run 7 years with (a) prices flat, (b) mortgage rate 7.75%, (c) rent growth 5%.

Deliverable: Scenario table.

Task 5: Advisor presentation

1. Recommend rent or buy for this household with a clear time-horizon rule.
2. Include one non-financial factor and the biggest risk.

Deliverable: 5–7 slide presentation.

Reflection

1. Is renting “throwing money away”? Use your numbers.

2. Which assumption mattered most?

3. What would you want to know before buying your first home?

Submission checklist

- ☐ Affordability check
- ☐ Monthly cost breakdown and cash to close
- ☐ Rent vs. buy table + graph

- [ ] Stress tests
- [ ] Presentation
- [ ] Reflection

Scoring rubric

Category (points)	Exemplary (100%)	Proficient (~80%)	Developing (~60%)	Beginning (~30%)
Financial understanding (20)	Uses vocabulary precisely and explains every financial concept involved, including assumptions.	Mostly accurate explanations with minor vocabulary gaps.	Partial understanding; some concepts misapplied.	Little evidence of understanding.
Mathematical accuracy (25)	Affordability, PITI, cash-to-close, and net-cost calculations correct.	1–2 minor errors that do not change conclusions.	Several errors or missing work.	Calculations largely missing or incorrect.
Analysis & comparison (20)	Compares every option on the same basis and tests at least one changed assumption.	Compares options with small gaps.	Comparison superficial or uneven.	Little analysis.
Justification (15)	Recommendation is supported by specific numbers and weighs non-financial factors and risks.	Mostly supported.	Mostly opinion.	No justification.
Communication & presentation (10)	Clear, organized, well-labeled tables, charts, and writing.	Minor clarity issues.	Hard to follow in places.	Disorganized.
Completion (10)	Every checklist item complete.	One item missing.	Two or three items missing.	Most items missing.

Total: 100 points. Alternative recommendations earn full credit when supported by accurate evidence.

ALL PEOPLE, BUSINESSES, PLACES, AND NUMBERS IN THIS PROJECT ARE FICTIONAL. RATES AND COSTS ARE ILLUSTRATIVE ASSUMPTIONS.