

INVESTMENT PRODUCTS

Investment Fees and Long-Term Growth

Detailed practice, calculation, decision-making, and assessment

GRADES 9-12	TIME 2 x 42 min	GROUPING I / pairs / whole	PRODUCT Fee impact analysis
YOUR CHALLENGE Translate percentage fees into dollars, compare two simplified long-term projections, and explain why small annual cost differences can matter over time.			

Fees Reduce the Money That Keeps Growing

Investment products and services can charge transaction fees, account fees, advisory fees, sales charges, and annual operating expenses. Some fees are direct. Others are deducted from fund assets and reduce returns. Always compare total costs, not one number alone.

Fee type	Student-friendly meaning	Question to ask
Expense ratio	Annual fund operating expenses stated as a percent of fund assets.	What is the total annual operating expense?
Trading cost	Cost connected to buying or selling.	What will this trade cost?
Account fee	Charge for maintaining or using an account.	Can it be avoided?
Advisory fee	Payment for ongoing investment advice or management.	How is the professional paid?
Sales load	Sales charge on certain fund transactions.	When and how is it charged?
MODEL LIMIT The projections use a simplified net rate: gross return minus annual fee. Real returns change, and fee calculation methods vary.		

Part 1 - Convert Percentages to Dollars

Average balance	Annual fee rate	Estimated annual fee	Balance left before market change
\$2,000	0.25%		
\$2,000	1.00%		
\$10,000	0.25%		
\$10,000	1.00%		

Convert each percent to a decimal and multiply by the average balance. Compare the \$10,000 results.

Part 2 - Project Two Simplified Portfolios

Both fictional portfolios begin with \$10,000 and earn a 6% gross annual return before fees. Portfolio L charges 0.25%; Portfolio H charges 1.00%. Use net rates of 5.75% and 5.00%.

Year	Portfolio L at 5.75%	Portfolio H at 5.00%	Difference
0	\$10,000.00	\$10,000.00	\$0
1			
5			
20			

Use a calculator with $\text{future value} = \text{principal} \times (1 + \text{net rate})^{\text{years}}$. Round to cents.

Part 3 - Explain the Compounding Effect

Question	Calculation or evidence	Answer
Portfolio L value after 20 years		
Portfolio H value after 20 years		
20-year dollar difference		
Gross 6% value with no fee in this model		
Why the difference grows over time		

Explain why a fee affects both money today and the future growth that money could have earned.

Part 4 - Read a Fictional Fee Disclosure

Disclosure item	Fund A	Fund B	Question or concern
Expense ratio	0.35%	0.20%	
Account fee	\$0	\$25 yearly	
Trade cost	\$0	\$1 per trade	
Planned trades	12 yearly	12 yearly	
Average balance	\$3,000	\$3,000	

Estimate one year of the listed costs for each fund. Which is lower under these facts? What could change the answer?

Part 5 - Fee Comparison Brief

Decision check	My evidence
Gross return assumption	
Annual fee rate	
Dollar fee estimate	
Long-term projection	
Account and trading costs	
Investment objective and holdings	
Break-even question	
Source document to review	

Write a 150-200 word brief. Include the 20-year projections, dollar difference, Fund A/Fund B cost estimate, a compounding explanation, and two questions an investor should ask.