Unit 9, Lesson 7

Solve Multiplicative Comparison Problems

Let's solve real-world multiplicative comparison problems.

Warm-up

Notice and Wonder: Two Cities

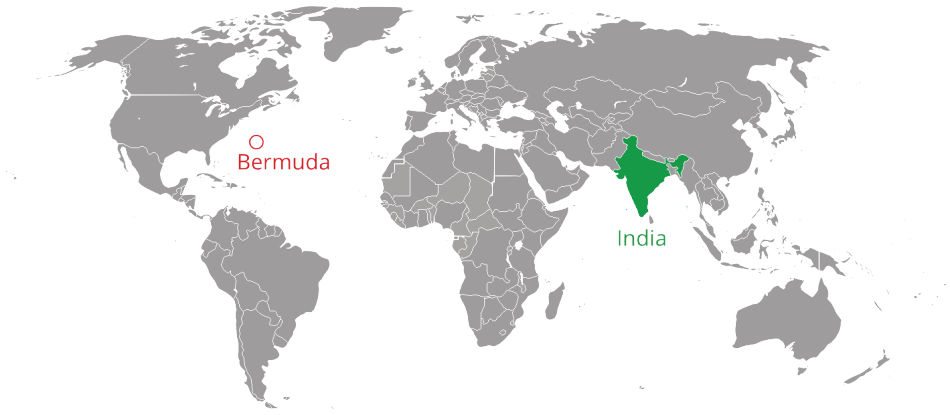
What do you notice? What do you wonder?

2023 prices	San Francisco, CA	Fort Wayne, IN
population	715,717	269,621
milk (1 gallon)	$5.99	$2.79
bread (1 loaf)	$4.79	$3.99
gasoline (1 gallon)	$6.02	$3.56
movie ticket	$17	$10.50
internet connection (1 month)	$89	$60
rent for a 3-bedroom apartment in the city center (1 month)	$5,000	$1,200
cost of a house	$1,380,000	$210,000

Activity 1

The Most and the Least Expensive

Bermuda is one of the most expensive countries to live in the world. India is one of the least expensive.



1. The table shows how prices (in U.S. dollars) in Bermuda and India compared in 2023. Estimate or calculate the missing information in the table.

2023 prices (U.S. dollars)	Bermuda	cost in Bermuda is ____ as in India	India
a meal with drink (1 person)		12.5 times as much	$6
gasoline (1 gallon)	$9	2 times as much	
brand-name jeans		3 times as much	$26
men's leather shoes	$136	4 times as much	
internet connection		13 times as much	$11

2. In 2023, rent for a 1-bedroom apartment in Delhi (DELL-ee), the capital city of India, cost about $182 per month. A similar apartment in Hamilton, Bermuda, costs 18 times as much.

   Utilities (electric, gas, water, and heating) for a small apartment cost about $65 per month in India and 2 times as much in Bermuda.

   If a person earned $3,500 per month, could they afford to pay rent and utilities in Bermuda?

Activity 2

The Cost of Living

The cost of living in the United States is higher than in Ghana.

1. The table shows how prices (in U.S. dollars) in the United States and Ghana compared in 2023.

2023 monthly cost (U.S. dollars)	United States	cost in the US is ____ as in Ghana	Ghana
1-bedroom apartment in city center	$2028	3 times as much	
1-bedroom apartment outside city center		17 times as much	$82
utilities for a 915-square-foot apartment	$191		$47
transportation pass	$76	2 times as much	
private preschool (1 child)	$1218		$58

2. In 2023, if a couple had $3,000 for housing and wanted a 1-bedroom apartment outside of a city center, how many months of rent could they afford in:

   a. the United States? Explain or show your reasoning.

   b. Ghana? Explain or show your reasoning.