

Daily Math Court (for Adults): Module 1

Lesson 2

MODULE ONE: LANDLORD AND TENANT

Lesson 2: Backyard Maintenance Mayhem - Fractions Decimals and Percentages

1.0 Lesson Overview and Learning Objectives

This lesson delves into the contentious case of Mary and her landlord, John, focusing on the division of property maintenance responsibilities. Through this real-life scenario, we will apply mathematical concepts to calculate financial obligations and explore fundamental legal principles governing landlord-tenant relationships. The aim is to equip learners with the ability to analyze complex situations, perform relevant calculations, and understand basic legal rights and responsibilities.

Learning Objectives:

LO1: Analyze property maintenance disputes through the application of fractions, decimals, and percentages.

LO2: Identify and apply basic legal principles regarding landlord and tenant maintenance responsibilities, particularly concerning clarity in lease agreements.

LO3: Evaluate real-life scenarios to determine financial liabilities and ethical considerations in property disputes.

1.1 Math Brief #2

Calculating a fraction, percentage, or decimal of a given quantity is a fundamental mathematical skill that helps us understand proportions and shared responsibilities in many everyday situations. It allows us to determine precise amounts when only a part of the whole is relevant.

- Example 1: Dividing Utility Bills. Imagine you share an apartment with a roommate, and you agree to pay $\frac{1}{2}$ of the electricity bill. If the bill is \$300, you need to calculate $\frac{1}{2}$ of \$300 to know your share, which is \$150. This is a direct application of finding a fraction of a quantity.
 - Example 2: Budgeting for Home Repairs. If you allocate 15% of your monthly income for home repairs and your income is \$4,000, you'd calculate 15% of \$4,000 to know that you've set aside \$600 for repairs. This helps you budget effectively for potential maintenance costs.
 - Example 3: Calculating Material Needs. A contractor estimates that 0.25 of the total paint needed for a house renovation will be for the trim work. If the entire job requires 20 gallons of paint, you'd calculate 0.25 of 20 gallons to determine that 5 gallons are for the trim. This ensures you buy the correct quantities.
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1.2 Case Study #2 (Fictitious): The Great Backyard Battle: Mary vs. John

Mary, still reeling from the premature eviction, found herself in a new, slightly less traumatic but equally frustrating situation. Her new apartment boasted a charming, albeit overgrown, backyard. The lease agreement, a standard template, stated that minor yard maintenance was the tenant's responsibility, but it vaguely implied that major landscaping fell to the landlord.

The backyard was huge – a sprawling 1000 square feet of green space. When Mary moved in on January 1st, it was a jungle. She spent hours meticulously clearing out weeds and trimming bushes. She focused on the 400 square feet closest to her patio, making it pristine. She then hired a gardener for \$300 to

tackle the remaining 600 square feet of wilderness, believing this part constituted "major landscaping" that should fall to John, her new landlord.

On January 15th, the backyard was looking magnificent. However, two weeks later, on January 29th, a massive storm hit. Branches fell, leaves scattered, and the entire backyard, including the portion Mary had just paid to have cleared, was once again a mess. Desperate to maintain her peaceful space, Mary hired the same gardener again. This time, the gardener cleared the *entire* 1000 square feet, costing Mary another \$500.

Mary, now feeling overwhelmed by the unexpected expenses and unclear responsibilities, decided to approach John. She believed she should be reimbursed for a portion of the second gardener's bill, arguing that the *entire* backyard clean-up after the storm, especially the 600 square feet she already considered John's responsibility, was a major maintenance issue. Help Mary answer these questions:

- What fraction of the total backyard area did Mary initially clear herself?
- What percentage of the backyard did the gardener clear for Mary the first time?
- What was Mary's total expenditure on yard work for January?
- If Mary argues that 0.6 of the *second* gardener's bill should be John's responsibility (because it related to the "major landscaping" area), how much is Mary claiming for reimbursement from the second bill?

1.3. Detailed Math Solution for Case Study #2

[View You Tube Video Solution](#)

2.0 Legal Perspectives Relating to the Case

2.1 Clarity in Lease Agreements: The case highlights the critical importance of clearly defining maintenance responsibilities within a written lease agreement. Ambiguities, such as the vague implication that "major landscaping" falls to the landlord, often lead to disputes. Generally, written agreements take precedence, and any terms should be specific to prevent misunderstandings.

2.2 Landlord's Responsibility: Landlords are typically responsible for maintaining the structural integrity and essential systems of the property, including major repairs and common areas. This could extend to significant landscaping work that goes beyond routine upkeep, especially if it affects the habitability or safety of the property, or is due to events like natural disasters (e.g., a "massive storm").

2.3 Tenant's Responsibility: Tenants are generally responsible for routine maintenance, cleanliness, and minor repairs within their leased premises. This often includes basic yard work. However, the scope of "minor" versus "major" can be a point of contention if not explicitly defined.

2.4 Burden of Ambiguity: In legal interpretation, ambiguities in a contract (like a lease) are often interpreted against the party who drafted the contract. This means if John (the landlord) provided the standard template with vague terms, a court might side with Mary's interpretation regarding "major landscaping."

2.5 Right to Reimbursement: If a tenant incurs costs for repairs that are clearly the landlord's responsibility and the landlord failed to act after proper notification, the tenant may have a claim for reimbursement. Mary's argument for reimbursement for the second gardener's bill after the storm falls into this category, particularly concerning the portion she considered John's responsibility.

3.0 Legal Dos and Don'ts for Landlords and Tenants

For Tenants (like Mary):

Dos:

1. Do insist on a detailed and clear written lease agreement that explicitly defines all maintenance responsibilities for both landlord and tenant before signing.
2. Do keep meticulous records of all communications (dates, times, content) with the landlord regarding maintenance issues, expenses incurred, and any claims for reimbursement.

Don'ts:

1. Do not assume responsibilities based on vague implications; always seek clarification in writing.
2. Do not undertake major repairs or incur significant expenses that might be the landlord's responsibility without first notifying the landlord and allowing them a reasonable opportunity to address the issue.

For Landlords (like John):

Dos:

1. Do ensure your lease agreements are comprehensive and unambiguous, clearly outlining who is responsible for all types of maintenance, from routine yard work to storm damage.
2. Do respond promptly to tenant requests for major repairs or issues caused by external factors like storms, as these are typically your responsibility.

Don'ts:

1. Do not rely on vague clauses in lease agreements; this can lead to disputes and unfavourable interpretations.
2. Do not expect tenants to bear the cost of damage or maintenance that clearly falls under the landlord's domain, such as damage from natural disasters or major structural issues.

4.0 Interactive Test #1

Here are 15 mixed mathematical and legal multiple-choice questions focusing on general property maintenance issues between landlords and tenants.

[Take Quiz 2](#)

End of Lesson 2

Fantastic work getting through this part of the module! Your commitment to learning is truly inspiring. As you move forward, remember to tackle those interactive tests at the end of each lesson – they're vital for solidifying your understanding. Keep pushing, because completing this module brings you closer to earning your official **Certificate of Participation** from The Math Court!

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