

# Lesson 5: Tiny House: Cost

## Standards Alignments

Addressing 3.NBT.A.2, 3.OA.D.8

### Teacher-facing Learning Goals

- Solve problems about the cost of finishing a room in a tiny house.

### Student-facing Learning Goals

- Let's calculate the cost of finishing a room in a tiny house.

## Lesson Purpose

The purpose of this lesson is for students to apply what they've learned about operations to calculate the cost to finish a space in a tiny house.

In a previous lesson, students used what they learned about area and perimeter to design a tiny house. In this lesson, they apply their knowledge of operations to calculate the cost of finishing one of the rooms of their tiny house. Students engage in aspects of mathematical modeling as they make decisions about quantities, relate measurements and costs, and interpret their results in context (MP4).

If students need additional support with the concepts in this lesson, refer back to Unit 3, Section A in the curriculum materials.

### Access for:

#### Students with Disabilities

- Action and Expression (Activity 1)

#### English Learners

- MLR8 (Activity 1)

## Instructional Routines

Estimation Exploration (Warm-up)

### Materials to Gather

- Materials from a previous lesson: Activity 1

## Lesson Timeline

Warm-up	10 min
Activity 1	35 min

## Teacher Reflection Question

What strategy did you anticipate today? Which did you not anticipate?

Lesson Synthesis

10 min

Cool-down

5 min

## Cool-down (to be completed at the end of the lesson)

 5 min

Find the Cost?

### Standards Alignments

Addressing 3.OA.D.8

### Student-facing Task Statement

What is the cost of 18 square feet of tile and kitchen plumbing? Explain your reasoning.

item	cost
flooring: tile	\$5 for each square foot
wood	\$4 for each square foot
carpet	\$2 for each square foot
paint	\$25 for each gallon (up to 400 square feet)
bathroom plumbing	\$379
toilet	\$138
bathroom sink and faucet	\$112
kitchen plumbing	\$253
kitchen sink and faucet	\$227
cabinets	\$90 for each foot
shelving	\$20 for each foot
dishes, cups, forks, spoons, etc.	Prices vary. Research or estimate cost.
dishwasher	\$389
portable stove	\$174

furniture	Prices vary. Research or estimate cost.
compact washer- dryer combination	\$225
bed	\$189

### Student Responses

\$343. Sample response: Tile flooring costs \$90, because  $18 \times 5$  is  $10 \times 5 + 8 \times 5$ , which is  $50 + 40$  or 90. Adding 253 and 90 together gives 343.