# Maths Accelerator Centre

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**P4 Problem Sums – Mini Lesson**

**Term 1 Lesson 4**

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Revision Notes :

In primary school, the Stacking Model is a powerful way to visualize relationships between different quantities. We use vertical rectangular blocks to represent values.

## The Stacking Model Visualization

With reference to the discussion question, we first represent the relationship between the bed and the chair. Since the chair is $280 cheaper, the bed's bar is longer.

Now, we "stack" the information from the second part of the problem:

**1 Bed + 4 Chairs = $880**.

By replacing the "Bed" with "1 Chair + $280", we can see the total cost in terms of identical "units" (chairs).

## Strategy Description: The Unit Method

The Stacking Model strategy involves levelling out all items so they represent the same "unit" value. By subtracting the known difference ($280$) from the total, we create a scenario where all items are equal in price. This allows us to use simple division to find the value of a single unit.

## Key Takeaway

The Stacking Model strategy involves the following steps :

1. **Identify the "extra" amount** (the difference).
2. **Subtract the extra** from the total to make all "units" equal.
3. **Divide** by the total number of units to find the price of the cheaper item.

## Discussion Question

Follow the trainer in this video and solve this question.

A chair costs $ 280 lesser than a bed. A bed and 4 identical chairs cost $ 880.

a. How much does each chair cost?

b. Find the cost of a bed and 2 identical chairs

## Practice Time

Here are **4 practice questions** based on this strategy.
Follow the step-by-step method we discussed in the video to solve each one.

✅ Work through the problems carefully.
✅ Check your solutions against the **Answer Key** provided on the last page.

1. A school bag costs **$45 more** than a pencil case. A school bag and **3 identical** pencil cases cost **$105**.

   **a.** How much does each pencil case cost?

   **b.** Find the total cost of 2 school bags and 1 pencil case.

2. A microwave costs **$150 less** than a refrigerator. A refrigerator and **2 identical** microwaves cost **$1,200**.

   **a.** What is the cost of one microwave?

   **b.** What is the total cost of 2 refrigerators and 2 microwaves?

3. A laptop costs **$800 more** than a tablet. **One** laptop and **5 identical** tablets cost **$2,300**.

   **a.** How much does one tablet cost?

   **b.** Find the cost of 1 laptop and 1 tablet.

4. A box of durians costs **$35 more** than a box of mangosteens. **One** box of durians and **6 identical** boxes of mangosteens cost **$140**.

   **a.** How much does a box of mangosteens cost?

   **b.** Find the cost of 2 boxes of durians and 2 boxes of mangosteens.

**Answer Key**

1a. $ 15

1b. $ 135

2a. $ 350

2b. $ 1700

3a. $ 250

3b. $ 250

3b. $ 1300

4a. $ 15

4b. $ 130