

Excess and Shortage Questions



The objective of this math revision note is to enhance your child's understanding and proficiency in solving excess and shortage questions.

Question 1

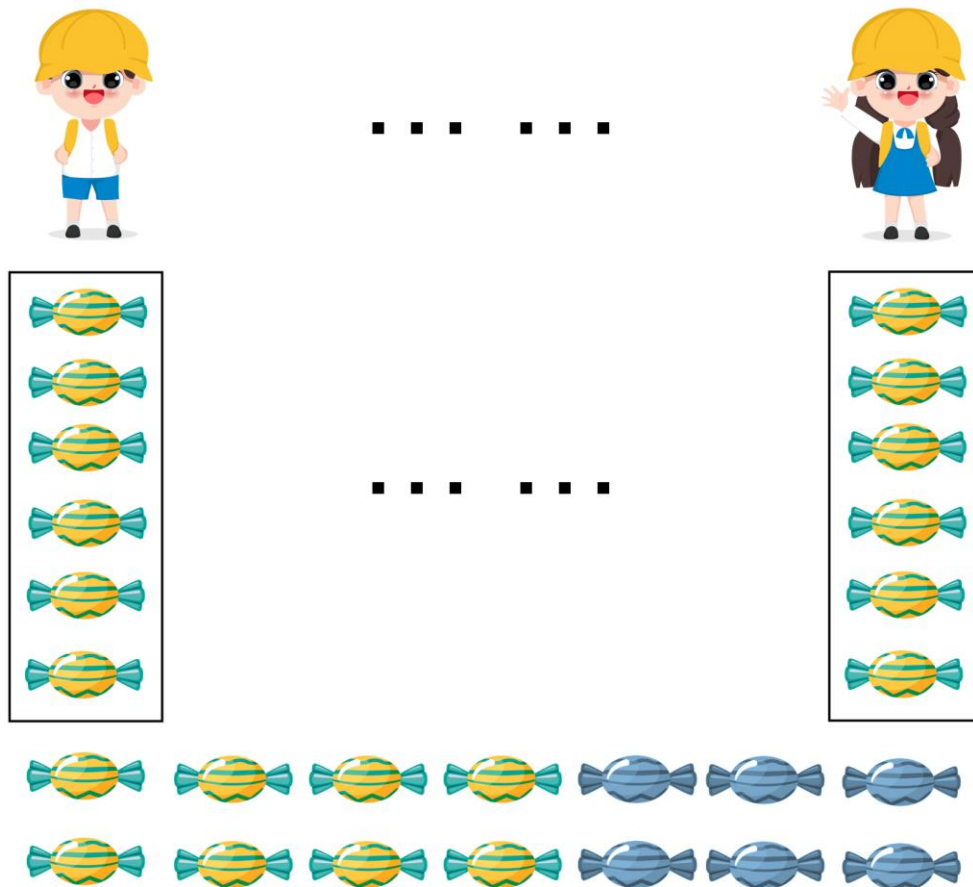
Mrs Tan bought some sweets to distribute to her class.

If she gives each student 6 sweets, she will have 8 sweets left.

If she gives each student 8 sweets, she will be 6 sweets short.

How many sweets does Mrs Tan have?

Solutions



In the 1st scenario, every student receives 6 sweets.

In the 2nd scenario, every student receives 8 sweets.

Hence each student receives 2 more sweets in the 2nd scenario than that of the 1st scenario.

$$\text{Difference in each student} = 8 - 6 = 2$$

When we compare the total number of sweets in the 1st scenario to that of the 2nd scenario, we can see that the 2nd scenario requires 14 more sweets.

$$\text{Total difference} = 8 + 6 = 14$$

Comparing the 2nd scenario to that of the 1st scenario:

Since every student gets 2 more sweets and they receive 14 more sweets in total, we can find the number of students as such:

$$14 \div 2 = 7 \text{ students}$$

We can find the total number of sweets by either using the 1st or 2nd scenario:

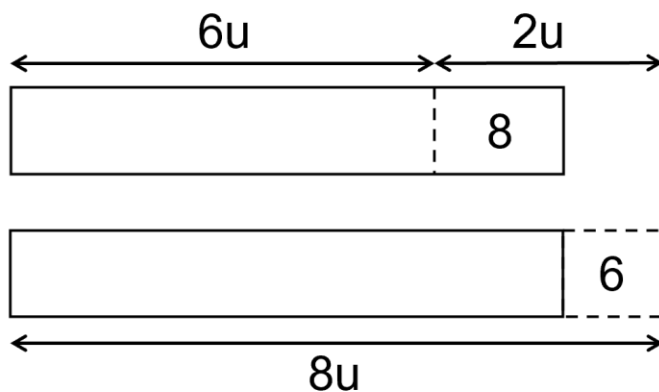
Using 1st scenario:

$$7 \times 6 + 8 = 50$$

Using 2nd scenario:

$$7 \times 8 - 6 = 50$$

Alternative solutions for (b)



$1u =$ the number of students

$$2u = 8 + 6 = 14$$

$$1u = 14 \div 2 = 7 \text{ students}$$

We can find the total number of sweets by either using the 1st or 2nd scenario:

Using 1st scenario:

$$7 \times 6 + 8 = 50$$

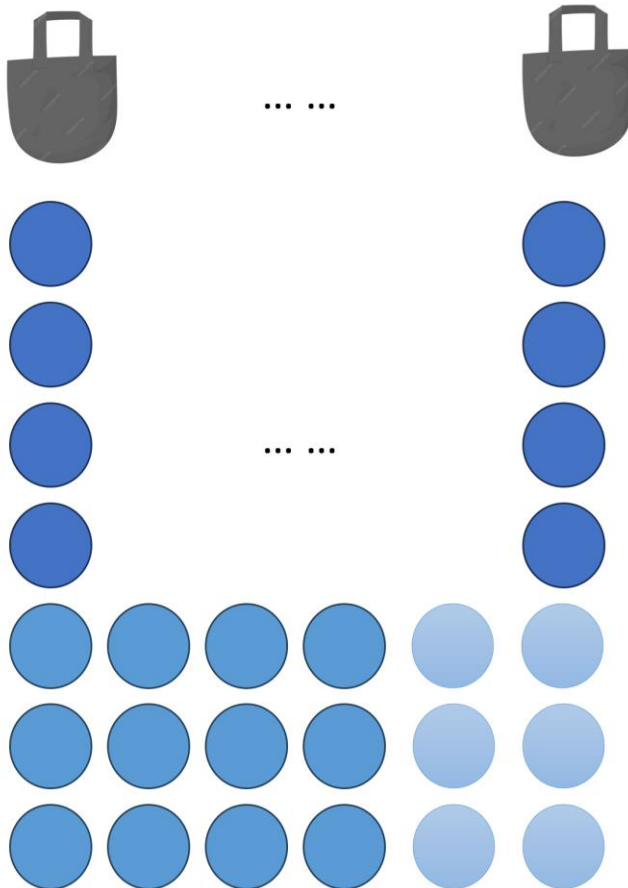
Using 2nd scenario:

$$7 \times 8 - 6 = 50$$

Question 2

Tim packed 4 balls into each bag and found that he had 12 balls left over. If he packed 7 balls into each bag, he would need another 6 more balls. Find the number of bags he has.

Solutions



Difference in each bag = $7 - 4 = 3$

Each bag has 3 more balls in the 2nd scenario compared to that of the 1st scenario.

Total difference = $12 + 6 = 18$

In the 2nd scenario, the bags have 18 more balls in total compared to that of the 1st scenario.

Comparing the 2nd scenario to that of the 1st scenario:

Since every bag has 3 more balls and the bags receive 18 more balls in total, we can find the number of bags as such:

Number of bags = $18 \div 3 = 6$ bags

Does your child need help in his or her studies?

1) Live Zoom Lessons at Grade Solution Learning Centre



At Grade Solution Learning Centre, we are a team of dedicated educators whose mission is to guide your child to academic success. Here are the services we provide:

- Live Zoom lessons
- EdaptIQ™, a smart learning platform that tracks your child's progress, strengths and weaknesses through personalised digital worksheets.
- 24/7 Homework Helper Service

We provide all these services above at a very affordable monthly fee to allow as many students as possible to access such learning opportunities.

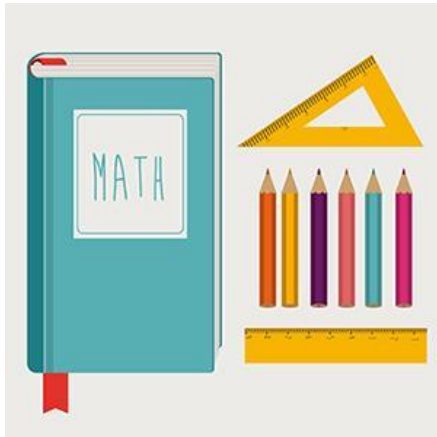
We specialise in English, Math, and Science subjects.

You can see our fees and schedules here >>

[Primary Math Tuition](#)

[Secondary Math Tuition](#)

2) Pre-recorded Online courses on Jimmymaths.com



If you are looking for something that fits your budget, or prefer your child learn at his or her own pace, you can join our pre-recorded online Math courses.

Your child can:

- Learn from recorded videos
- Get access to lots of common exam questions to ensure sufficient practice
- Get unlimited support and homework help

You can see the available courses here >>

[Math Online Courses](#)