



Primary 5
Model / Branching
Lesson 4:
Remainder Scenario (IV)

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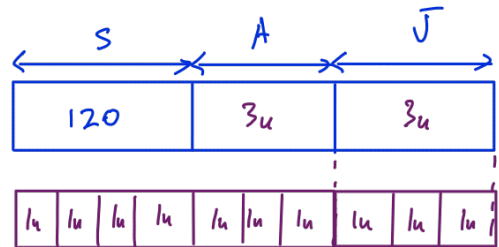
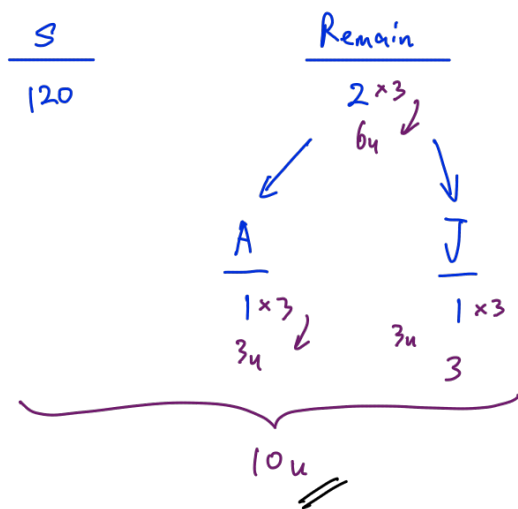
LESSON 4: Whole number removed, Portion Remain

GUIDED EXAMPLE 1

During a travel fair, 120 families chose Switzerland as their holiday destination.

$\frac{1}{2}$ 50% of the remaining families chose Australia while the rest chose Japan.

$\frac{3}{10}$ If 30% of all the families at the travel fair chose Japan, how many families were there at the travel fair?



$$10u - 6u = 120$$

$$4u = 120$$

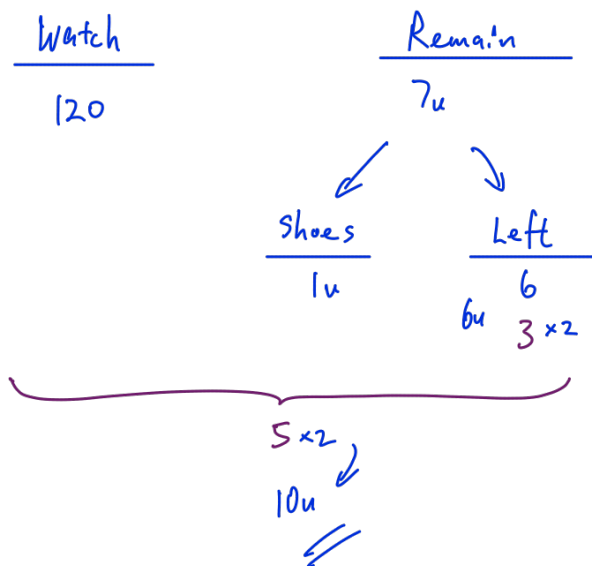
$$10u = 10 \times \frac{120}{4}$$

$$= 300$$

Ans : 300

GUIDED EXAMPLE 2

Mrs. Lee spent \$120 on a watch.
 She spent $\frac{1}{7}$ of her remaining money on a pair of shoes.
 She had $\frac{3}{5}$ of her money left.
 How much money did Mrs. Lee have at first?



$$10u - 7u = 120$$

$$3u = 120$$

$$1u = 120 \div 3$$

$$= 40$$

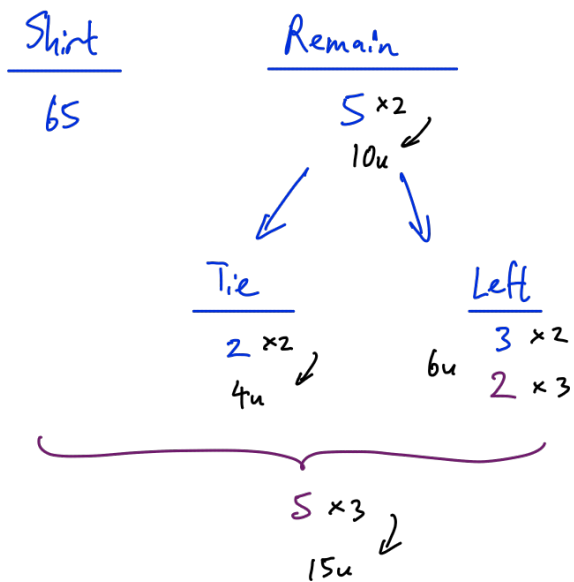
$$10u = 10 \times 40$$

$$= 400$$

Ans : \$ 400

GUIDED EXAMPLE 3

Alan spent \$65 on a shirt and $\frac{2}{5}$ of the remaining money on a tie. He had 40% of his original amount of money left. Find the amount of money he had at first.



$$15u - 10u = 65$$

$$5u = 65$$

$$\times 3 \quad \downarrow$$

$$15u = 3 \times 65$$

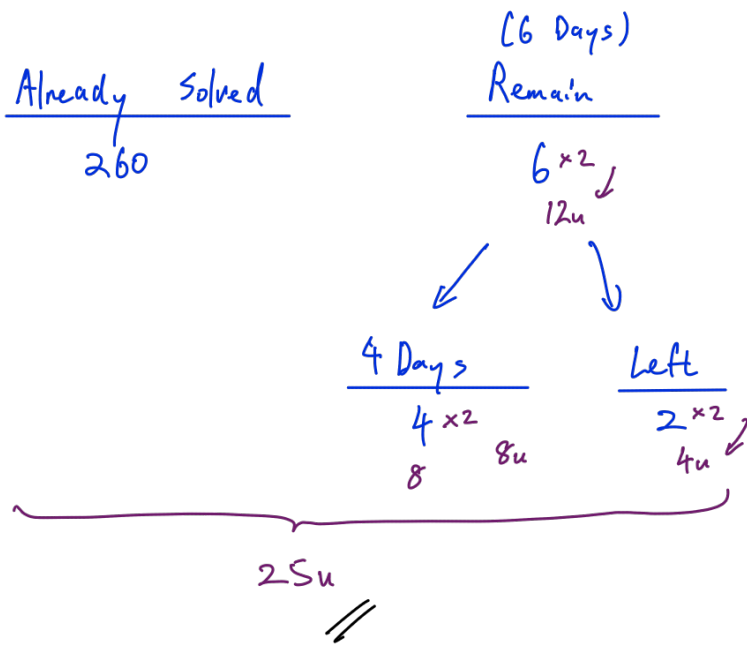
$$= 195$$

Ans : \$195

GUIDED EXAMPLE 4

Raju has already solved 260 Math problems to prepare for his examination. He planned to finish the rest of the Math problems in the next 6 days by solving the same number of Math problems each day.

$\frac{8}{25}$ If he completes 32% of the Math problems in the next 4 days, how many Math problems would he have solved altogether?



$$25u - 12u = 260$$

$$13u = 260$$

$$25u = 25 \times \frac{260}{13}$$

$$= 500$$

Ans : 500

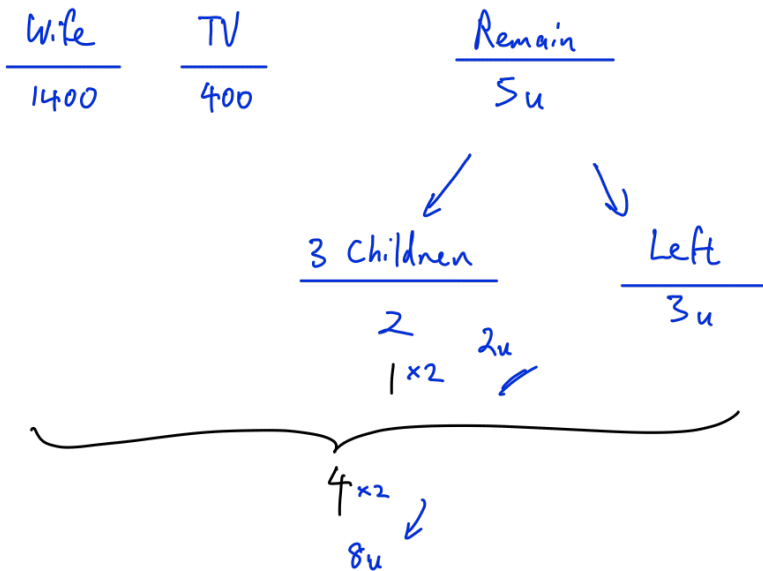
GUIDED EXAMPLE 5

Mr. Chan had a sum of money.

He gave \$1400 to his wife and spent \$400 on a television set.

He then gave $\frac{2}{5}$ of the remaining money to his three children.

Given that [each child received $\frac{1}{12}$ of the original sum of money,] how much did each child receive?



$$1 \text{ child} \rightarrow \frac{1}{12} \text{ of Total}$$

$$3 \text{ Children} \rightarrow \frac{3}{12} \text{ of Total}$$

$$= \frac{1}{4} \text{ of Total}$$

$$8u - 5u = 1400 + 400$$

$$3u = 1800$$

$$1u = 1800 \div 3$$

$$= 600$$

$$2u = 2 \times 600$$

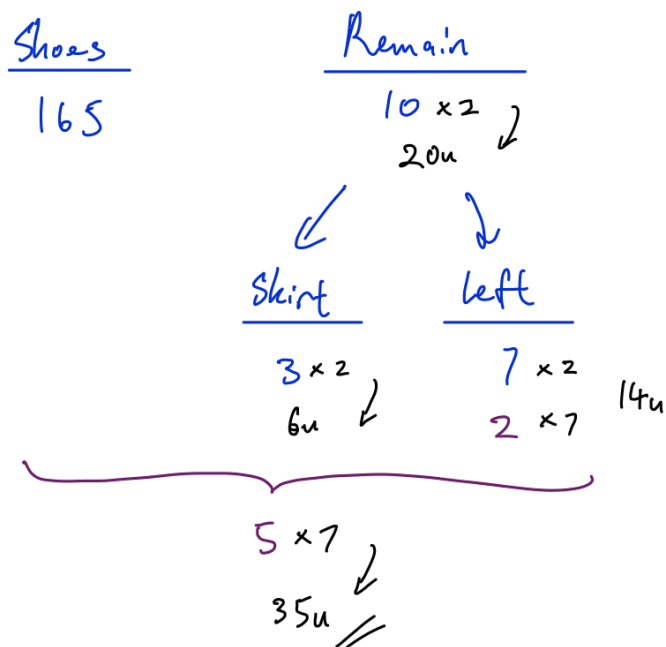
$$= 1200$$

$$1200 \div 3 = 400$$

Ans: \$400

BUILD YOUR UNDERSTANDING

1. Patsy spent \$165 on a pair of shoes and $\frac{3}{10}$ of the remainder on a skirt. Given that she had 40% of her original amount of money left, find the amount of money she had at first.



$$35u - 20u = 165$$

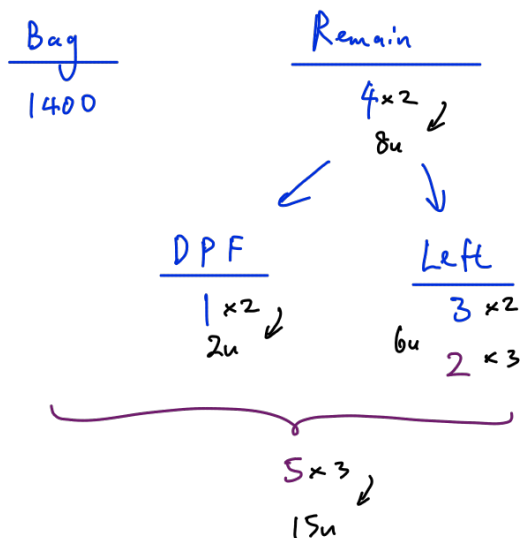
$$15u = 165$$

$$35u = 35 \times \frac{165}{15}$$

$$= 385$$

Ans : 385

2. Ali won some money in a lottery draw.
 He spent \$1400 to buy a bag and $\frac{1}{4}$ of the remainder on a digital photo frame.
 If he had 40% of the money left, how much money did he win?



$$15u - 8u = 1400$$

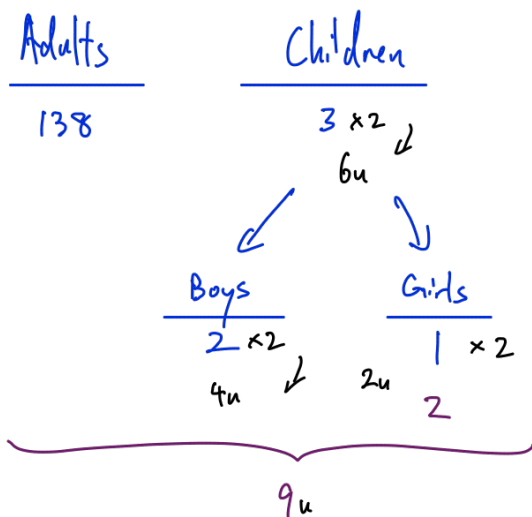
$$7u = 1400$$

$$15u = 15 \times \frac{1400}{7}$$

$$= 3000$$

Ans: \$3000

3. There were 138 adults and some children at a concert.
 $\frac{2}{3}$ of the children were boys and the rest were girls.
 Given that $\frac{2}{9}$ of the people at the concert were girls,
 how many people were at the concert?



$$9u - 6u = 138$$

$$3u = 138$$

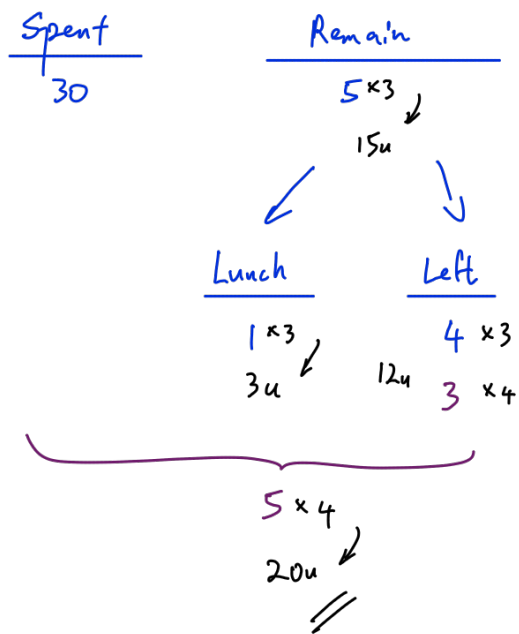
$$\times 3 \downarrow$$

$$9u = 3 \times 138$$

$$= 414$$

Ans : 414

4. Peter had some money.
 He spent \$30 and $\frac{1}{5}$ of his remaining money on lunch.
 He realised that she had $\frac{3}{5}$ of her money left.
 How much money did Peter have at first?



$$20u - 15u = 30$$

$$5u = 30$$

$$\times 4 \quad \downarrow \quad 20u = 4 \times 30$$

$$= 120$$

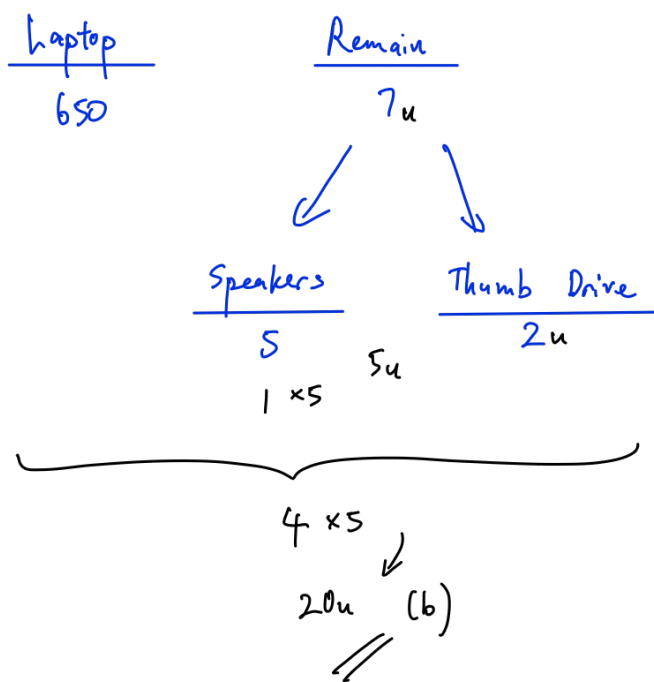
Ans : \$120

5. During a sale, John spent \$650 of his money on a laptop and the remaining money on a pair of speakers and a thumb drive. The ratio of the amount of money he spent on the pair of speakers to the thumb drive is 5:2.

He used $\frac{1}{4}$ of his money for the pair of speakers.

- a) What fraction of the remaining money did John spend on the thumb drive?
 b) How much money did John have at first?

(CHS P5 Mid-Year)

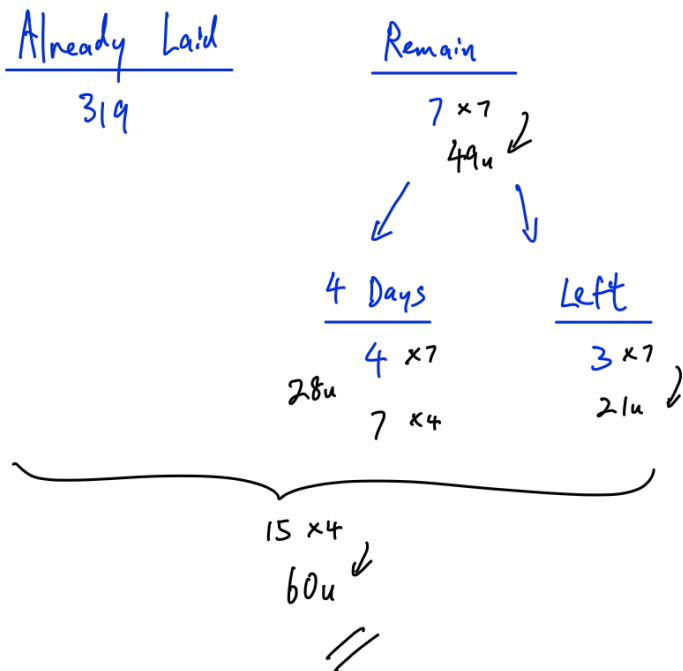


a) $\frac{2}{7}$

b) $20u - 7u = 650$
 $13u = 650$
 $20u = 20 \times \frac{650}{13}$
 $= 1000$

Ans : a) $\frac{2}{7}$
 b) \$1000

6. A contractor needed to cover the entire hall with tiles. He laid 319 tiles. He completed tiling the rest of the hall in the next 7 days using an equal number of tiles each day. At the end of the 4th day, he was able to tile $\frac{7}{15}$ of the hall. How many tiles did the contractor use to cover the entire hall?



$$60u - 49u = 319$$

$$11u = 319$$

$$60u = 60 \times \frac{319}{11}$$

$$= 1740$$

Ans : 1740

CHALLENGE YOURSELF

Pauline had some money.

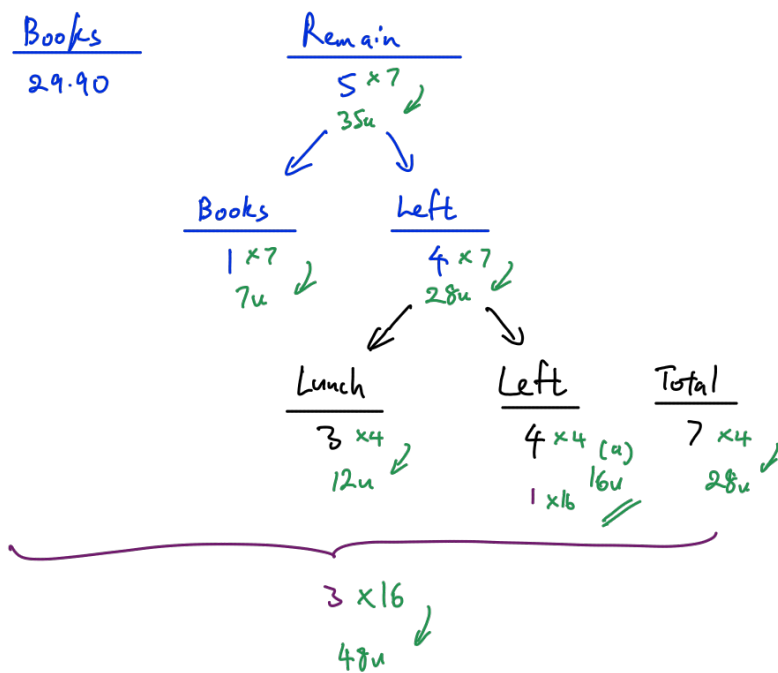
She spent \$29.90 and $\frac{1}{5}$ of her remaining money on some books.

She then spent $\frac{3}{7}$ of what she had left on her lunch.

In the end, she realised that she had $\frac{1}{3}$ of her money left.

- a) How much money did Pauline have in the end?
- b) How many books did she buy if each book costs \$5.75?

(SCGS SA2 Paper 2 Q16)



$$48u - 35u = 29.90$$

$$13u = 29.90$$

$$1u = 29.90 \div 13$$

$$= 2.30$$

$$a) 16u = 16 \times 2.30$$

$$= 36.80$$

$$b) 7u + 29.90 = 7 \times 2.30 + 29.90$$

$$= 46$$

$$46 \div 5.75 = 8$$

$$\text{Ans : a) } \underline{\$36.80}$$

$$b) \underline{8}$$