



Primary 5

Unit & Part Model

Lesson 6:

Before and After (II)

More/less than

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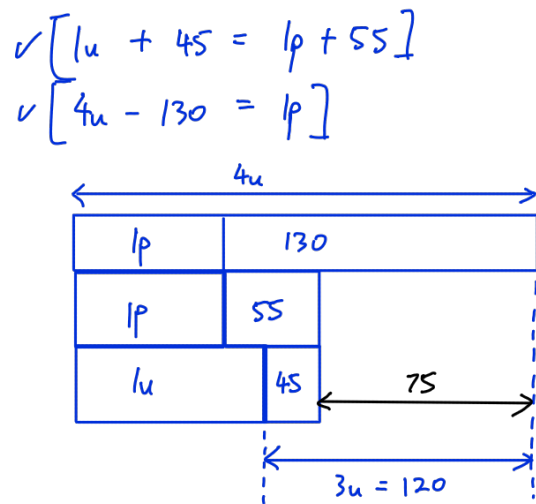
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LESSON 6: Before and After (II)

GUIDED EXAMPLE 1

- B Belinda had $\frac{1}{4}$ as many stickers as Daisy.
- C Daisy gave away 130 stickers while Belinda bought another 45 stickers.
- A As a result, Belinda had 55 more stickers than Daisy.
Find the number of stickers Belinda had in the end.

	Belinda	Daisy
Before	$1u$	$4u$
Change	$+45$	-130
After	$1u + 45$ $1p + 55$	$4u - 130$ $1p$



$$4u - 1u = 130 - 55 + 45$$

$$3u = 120$$

$$1u = 120 \div 3$$

$$= 40$$

$$40 + 45 = 85$$

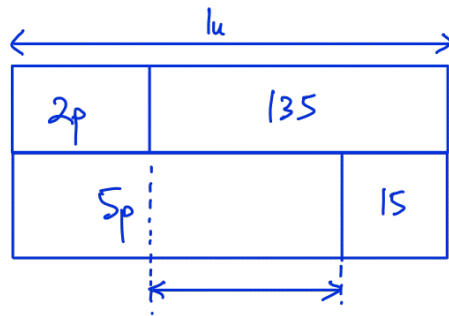
Ans : 85

GUIDED EXAMPLE 2

- B Frankie's monthly allowance is \$100 more than Delta.
 C In a particular month, Frankie spent \$235 and Delta spent \$15,
 A the ratio of Frankie's money to Delta's money became 2 : 5.
 How much is each of their month allowance?

	Frankie	Delta
Before	$lu + 100$ (315)	lu
Change	-235	-15
After	$lu - 135$ $2p$ (80)	$lu - 15$ $5p$

✓ $[lu - 135 = 2p]$
 $[lu - 15 = 5p]$



$$5p - 2p = 135 - 15$$

$$3p = 120$$

$$1p = 120 \div 3$$

$$= 40$$

$$2p = 2 \times 40$$

$$= 80$$

$$80 + 235 = 315$$

$$315 - 100 = 215$$

Ans : Frankie : \$315
Delta : \$215

GUIDED EXAMPLE 3

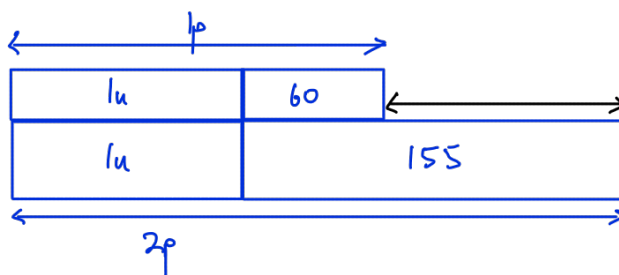
Ronald collected Coke bottles and Pepsi bottle caps.

- B [There were 50 more Coke bottle caps than Pepsi bottle caps at first.]
- C [When he bought another 10 Coke bottle caps and 155 Pepsi bottle caps,]
- A [the number of Coke bottle caps became $\frac{1}{2}$ the number of Pepsi bottle caps.]

Find the number of Pepsi bottle caps he had at first.

	Coke	Pepsi
Before	$1u + 50$	$1u$
Change	+10	+155
After	$1u + 60$ $1p$	$1u + 155$ $2p$ (190)

✓ $[1u + 60 = 1p]$
 $[1u + 155 = 2p]$



$$2p - 1p = 155 - 60$$

$$1p = 95$$

$$2p = 2 \times 95$$

$$= 190$$

$$190 - 155 = 35$$

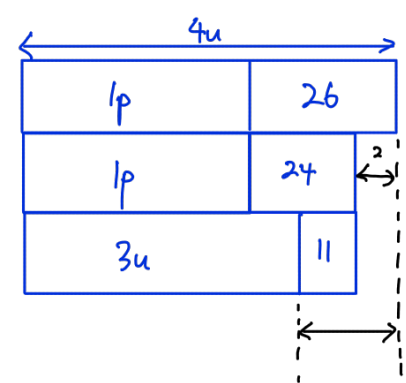
Ans : 35

GUIDED EXAMPLE 4

- B [Mr. Sim bought some sweets and lollipops in the ratio of 4 : 3 for Children's Day.]
 C [He gave 26 sweets to some children and bought another 11 lollipops.]
 A [The number of sweets became 24 less than the number of lollipops.]
 Find the number of lollipops he had in the end.

	Sweets	Lollipops
Before	$4u$	$3u$
Change	-26	$+11$
After	lp	$lp + 24$

✓ $[4u - 26 = lp]$
 $[3u + 11 = lp + 24]$



$$4u - 3u = 26 - 24 + 11$$

$$1u = 13$$

$$3u + 11 = 3 \times 13 + 11$$

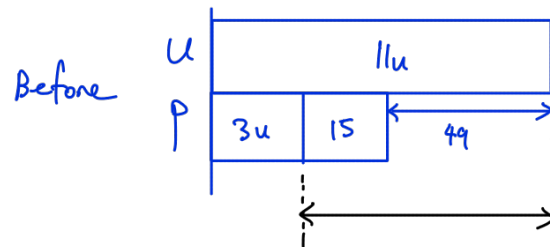
$$= 50$$

Ans : 50

GUIDED EXAMPLE 5

- B [The mass of rice in Sack U is 49 kg heavier than Sack P.]
 B, C, A [When $\frac{4}{11}$ of the rice from Sack U is transferred to Sack P,]
 A [the mass of rice in Sack U became 15 kg lighter than that of Sack P.]
 Find the mass of rice in Sack P at first.

	Sack U	Sack P
Before	$11u$	$3u + 15$
Change	$-4u$	$+4u$
After	$7u$	$7u + 15$



$$\begin{aligned}
 11u - 3u &= 15 + 49 \\
 8u &= 64 \\
 u &= 64 \div 8 \\
 &= 8 \\
 3u + 15 &= 3 \times 8 + 15 \\
 &= 39
 \end{aligned}$$

Ans : 39

GUIDED EXAMPLE 6*

- B Tom had 81 more square stickers than round stickers.
 B, C, A After he gave away $\frac{4}{9}$ of his square stickers and $\frac{1}{4}$ of his round stickers,
 A he was left with 17 more square stickers than round stickers.
 How many round stickers did he have at first?

	Square	Round
before	$9u$	$4p$
Change	$-4u$	$1p$
After	$5u$	$3p$

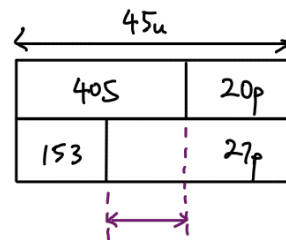
$$9u - 4p = 81 \quad (\times 5)$$

$$5u - 3p = 17 \quad (\times 9)$$

To find p , make u the same

$$\checkmark [45u - 20p = 405]$$

$$\checkmark [45u - 27p = 153]$$



$$27p - 20p = 405 - 153$$

$$7p = 252$$

$$p = 252 \div 7$$

$$= 36$$

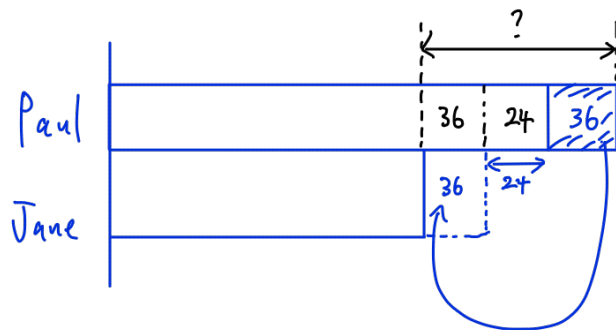
$$4p = 4 \times 36$$

$$= 144$$

Ans : 144

BUILD YOUR UNDERSTANDING

- Paul and Jane have some picture cards.
 After Paul gave 36 picture cards to Jane,
 Paul has 24 more picture cards than Jane.
How many more picture cards than Jane does Paul have in the beginning?



$$36 + 24 + 36 = 96$$

Ans : 96

Primary 5

Before and After (II)

More/less than

2. B Allen had 80 more local stamps than foreign stamps.

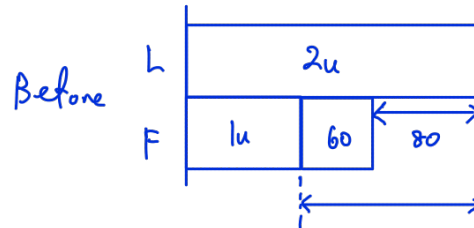
B, C, A After giving away $\frac{1}{2}$ of the local stamps,

A there were 60 more foreign stamps than local stamps.

How many local stamps did Allen have at first?

	Local	Foreign
Before	$2u$	$u + 60$
Change	$-1u$	
After	$1u$	$u + 60$

Handwritten annotations: A double slash under $2u$ in the 'Before' row. A curved arrow points from the 'Before' row to the 'After' row. A curved arrow points from the 'Local' column to the 'Foreign' column, labeled '+60'.



$$2u - 1u = 60 + 80$$

$$1u = 140$$

$$2u = 2 \times 140$$

$$= 280$$

Ans : 280

Primary 5

Before and After (II)

More/less than

3. Richard had $1u + 132$ more stamps than Jenny $1u$ at first.
 After Jenny gave Richard 45 stamps,
 $3p$ Richard had thrice as many stamps as Jenny $1p$.
 Find the number of stamps Jenny had at first.

	Richard	Jenny
Before	$1u + 132$	$1u$
Change	+45	-45
After	$3p$	$1p$ (111)

$$\begin{cases} 1u + 177 = 3p \\ 1u - 45 = 1p \end{cases}$$

$$\begin{aligned} 3p - 1p &= 45 + 177 \\ 2p &= 222 \\ p &= 222 \div 2 \\ &= 111 \end{aligned}$$

$$111 + 45 = 156$$

Ans : 156

Primary 5

Before and After (II)

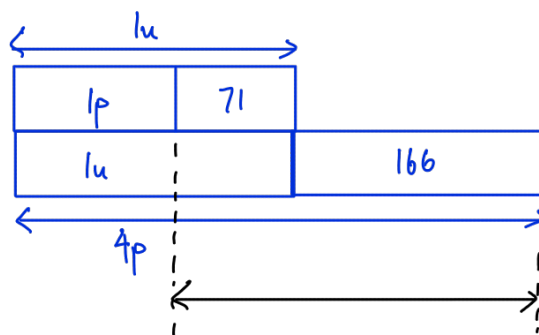
More/less than

4. B Mandy had $l_u + 124$ more than Paul l_u .
 C Paul spent \$29 and gave \$42 to Mandy.
 A In the end, Paul had $\frac{1}{4}$ as much money as Mandy $4p$.
 How much money did they have altogether at first?

	Mandy	Paul	Total
Before	$l_u + 124$	l_u	$5p + 29$
Change	+42	-29 -42	-29
After	$4p$	$1p$	$5p$

$$\checkmark [l_u + 166 = 4p]$$

$$\checkmark [l_u - 71 = 1p]$$



$$4p - 1p = 71 + 166$$

$$3p = 237$$

$$1p = 237 \div 3$$

$$= 79$$

$$5p + 29 = 5 \times 79 + 29$$

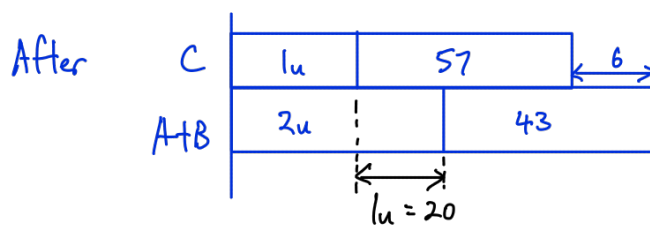
$$= 424$$

Ans : \$424

5. B [There were 18 marbles in Box A, 25 marbles in Box B and 57 marbles in Box C.]
 C [Raymond put an equal number of marbles into each of the 3 boxes.]
 A [As a result, Box C contained 6 marbles ^{fewer} less than the total number of marbles in Box A and Box B.] How many marbles did Raymond put into each box?

	Box A	Box B	Box C
Before	18	25	57
Change	+ <u>u</u>	+ <u>u</u>	+ <u>u</u>
After	<u>u</u> + 18	<u>u</u> + 25	<u>u</u> + 57

$\underbrace{\hspace{10em}}_{2u + 43}$



$$2u - u = 57 + 6 - 43$$

$$u = 20$$

Ans : 20

6. B In a library, there were 28 more men than women.
 B, C, A $\left(\frac{1}{7}\right)$ of the men and $\left(\frac{2}{5}\right)$ of the women left the library.

C [Among the adults that left the library, there were 32 more women than men.]

How many men were there in the hall at first?

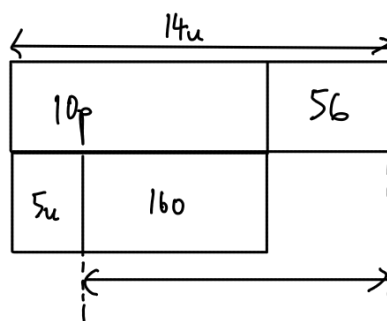
	Men	Women
Before	$7u$ $7u$	$5p$
Left	$1u$	$2p$
After	$6u$	$3p$

$$7u - 5p = 28 \quad (\times 2)$$

$$2p - 1u = 32 \quad (\times 5)$$

To find u , make p the same

$$\begin{aligned} \checkmark [14u - 10p &= 56] \\ \checkmark [10p - 5u &= 160] \end{aligned}$$



$$14u - 5u = 160 + 56$$

$$9u = 216$$

$$1u = 216 \div 9$$

$$= 24$$

$$7u = 7 \times 24$$

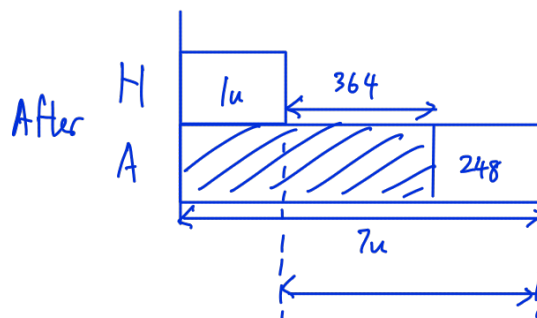
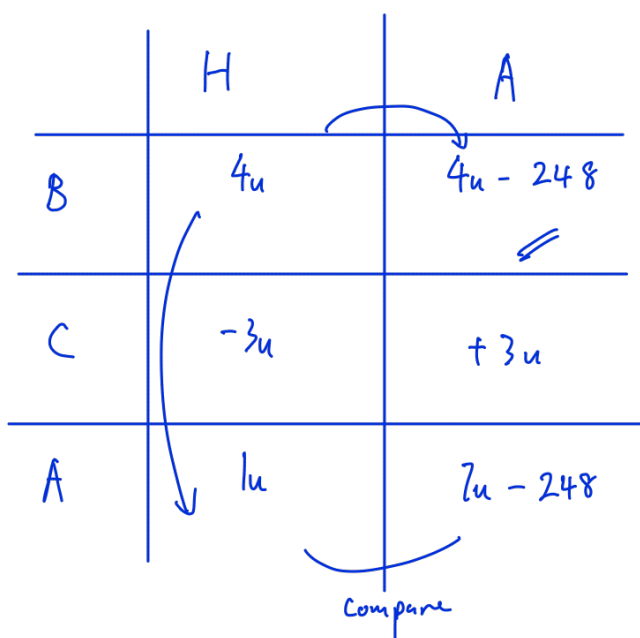
$$= 168$$

Ans : 168

CHALLENGE YOURSELF

Helen had 248 marbles more than Ali.
 After Helen gave $\frac{3}{4}$ of her marbles to Ali,
 Ali had 364 more marbles than Helen.
 How many marbles did Ali have at first?

(RGPS P5 SA2 Paper 2 Q18)



$$\begin{aligned}
 7u - 1u &= 364 + 248 \\
 6u &= 612 \\
 1u &= 612 \div 6 \\
 &= 102 \\
 4u - 248 &= 4 \times 102 - 248 \\
 &= 160 \text{ (Ans)}
 \end{aligned}$$

CHALLENGE YOURSELF

There was a total of 138 eggs in Tray A and Tray B.
 Ali put 17 eggs in Tray A and removed 29 eggs in Tray B.
 As a result, the number of eggs in Tray A became
 24 more in number than the number of eggs in Tray B.
 How many eggs were there in Tray A at first?

	A	B	Total
B			138
C	+ 17	- 29	+17 -29
A	$1u + 24$ 75	$1u$	$2u + 24$ 126

$$2u + 24 = 126$$

$$2u = 126 - 24$$

$$= 102$$

$$1u = 102 \div 2$$

$$= 51$$

$$1u + 24 = 51 + 24$$

$$= 75$$

$$75 - 17 = 58 \quad (\text{Ans})$$