



**Primary 5**  
**Model Approach**  
Lesson 8  
Comparison Models

enquiry@mathsheuristics.com  
Whatsapp Support:  
8333 6240

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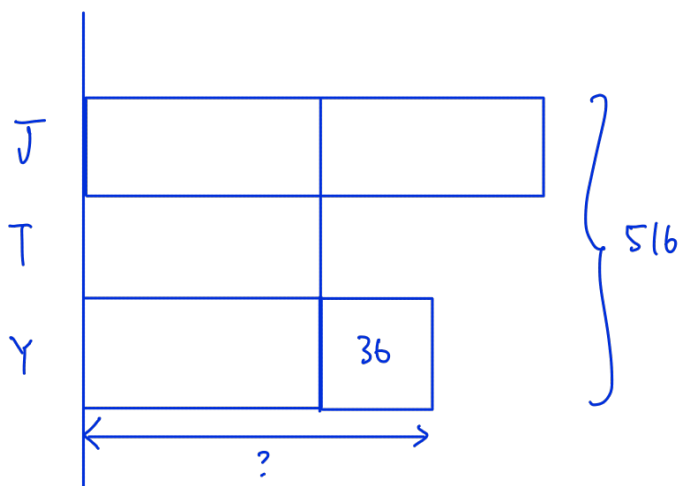
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# LESSON 8: Comparison Models

## GUIDED EXAMPLE 1

- \* <sup>2</sup> Julian has twice as many marbles as <sup>1</sup> Ted.
- Yan Fei has 36 more marbles than Ted.
- The three of them have 516 marbles altogether.
- How many marbles does Yan Fei have?



$$516 - 36 = 480$$

$$480 \div 4 = 120$$

$$120 + 36 = 156$$

Ans : 156

**GUIDED EXAMPLE 2**

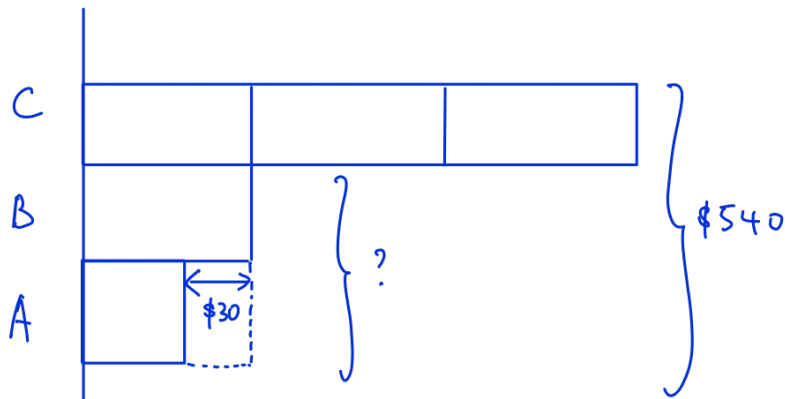
Andy, Benny and Carl had a total of \$540.

Benny had \$30 more than Andy.

$\xrightarrow{\quad}$  A has \$30 less than B.

\* Carl had thrice as much money as Benny.

How much money did Andy and Benny have altogether?



$$540 + 30 = 570$$

$$570 \div 5 = 114$$

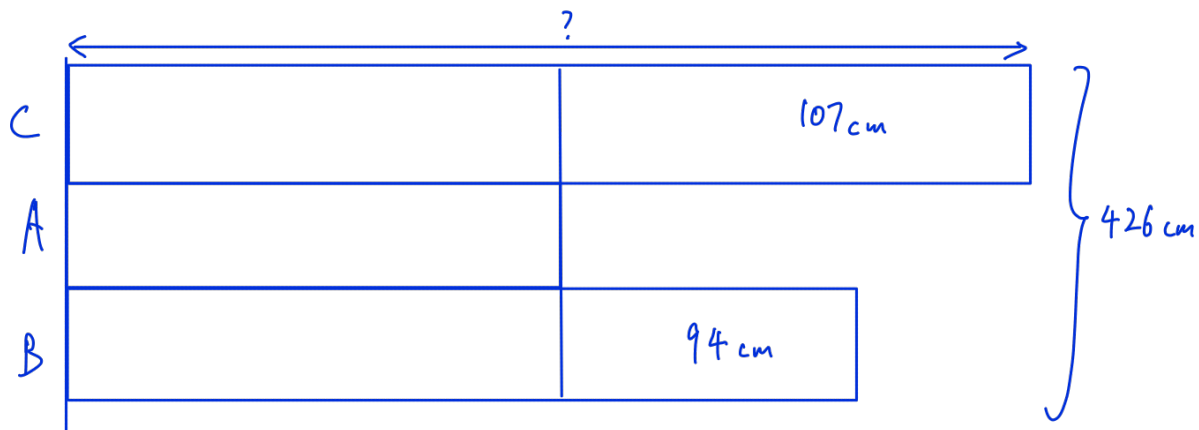
$$114 - 30 = 84$$

$$114 + 84 = 198$$

Ans : \$198

**GUIDED EXAMPLE 3**

Ribbon A is 94 cm shorter than Ribbon B.  
Ribbon C is 107 cm longer than Ribbon A.  
The total length of the three ribbons is 426 cm.  
What is the length of Ribbon C?



$$426 - 107 - 94 = 225$$

$$225 \div 3 = 75$$

$$75 + 107 = 182$$

Ans : 182 cm

**GUIDED EXAMPLE 4**

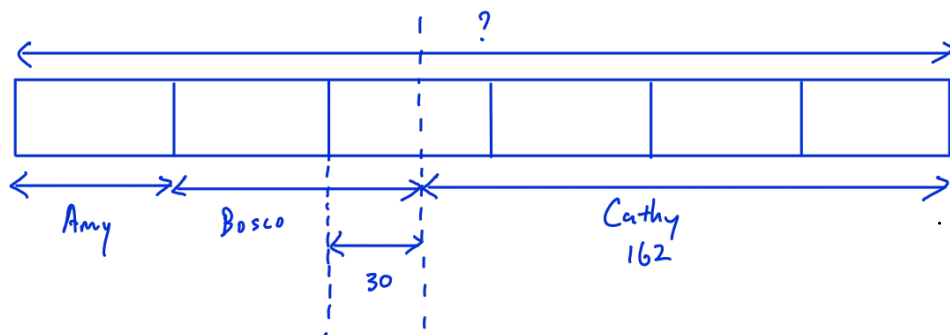
Three children sold some muffins at a carnival.

Amy sold  $\frac{1}{6}$  of the muffins.

Bosco sold 30 more muffins than Amy.

Cathy sold the remaining 162 muffins.

How many muffins did they sell altogether?



$$30 + 162 = 192$$

$$192 \div 4 = 48$$

$$6 \times 48 = 288$$

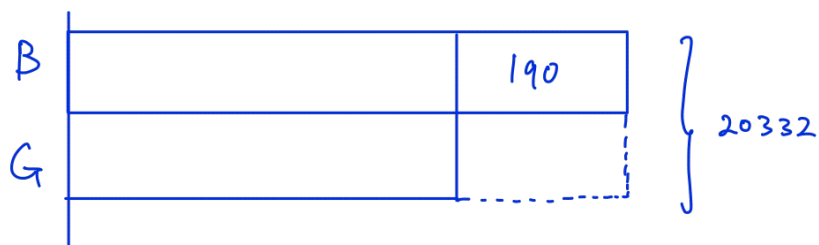
Ans : 288

**GUIDED EXAMPLE 5**

There were 35972 spectators at a parade.  
 The ratio of the number of adults to children was 10 : 13.  
 There were 190 more boys than girls.  
 How many boys were there?

A	C	Total
$10 \times 1564$	$13 \times 1564$	23
15640	20332	35972

$\times 1564$



$$(20332 + 190) \div 2 = 10261$$

Ans : 10261

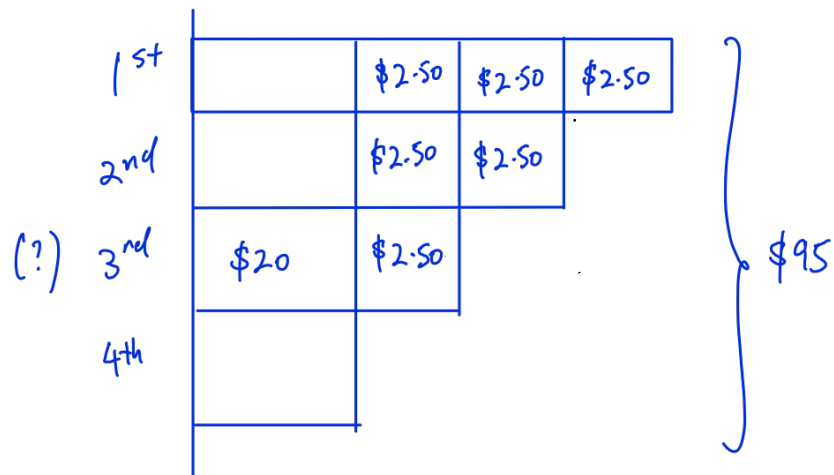
**GUIDED EXAMPLE 6**

Andy started saving to buy a computer mouse.

\* [ Each day, he saved \$2.50 less than the day before. ]

At the end of the fourth day, he saved a total of \$95.

How much money did he save on the third day?



$$95 - 6 \times 2.50 = 80$$

$$80 \div 4 = 20$$

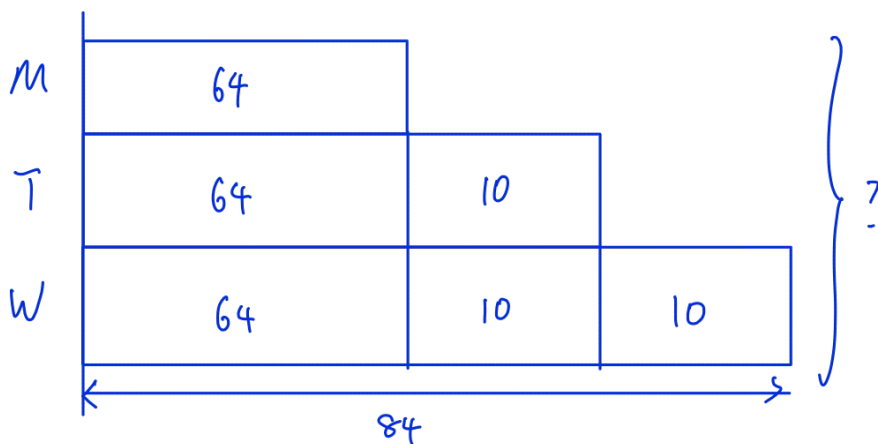
$$20 + 2.50 = 22.50$$

Ans : \$22.50



**BUILD YOUR UNDERSTANDING**

1. Kelly read a book from Monday to Wednesday.  
 [Every day, she read 10 more pages than the day before.]  
 She read 84 pages on Wednesday.  
 How many pages of the book did Kelly read from Monday to Wednesday?

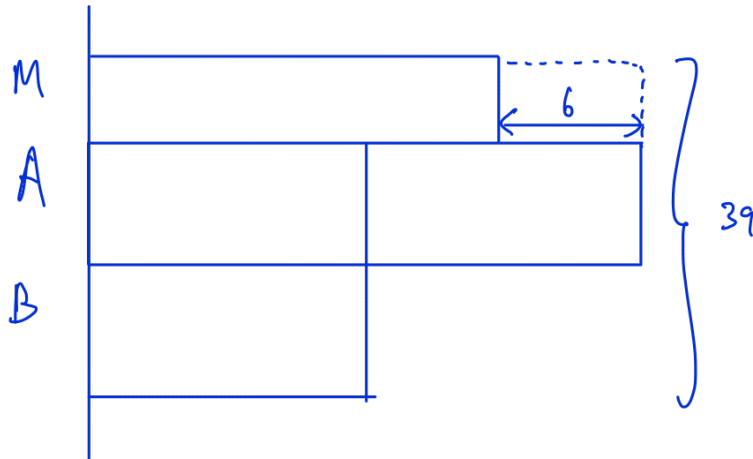


$$84 - 10 - 10 = 64$$

$$3 \times 64 + 3 \times 10 = 222$$

Ans : 222

2. \* Alice's age is twice Brandon's age.  
 Michelle is 6 years younger Alice.  
 The sum of their ages is 39.  
 How old is Michelle?



$$39 + 6 = 45$$

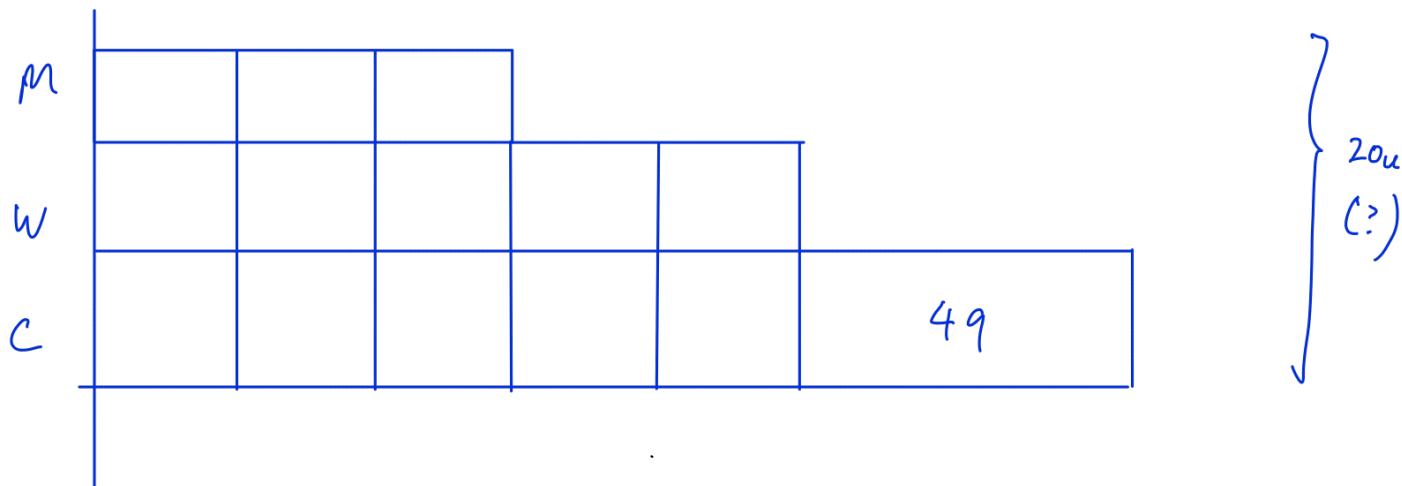
$$45 \div 5 = 9$$

$$2 \times 9 - 6 = 12$$

Ans : 12 years old

3. At a fun fair, there were 49 more children than women.  
 There were  $\frac{3}{5}$  as many men as women.  
 Given that the number of women was  $2\frac{1}{4}\%$  of the total number of people at the fun fair, how many people were at the fun fair?

$$\frac{1 \times 5u}{4 \times 5u} = \frac{5u}{20u}$$



$$20u - 3u - 5u - 5u = 49$$

$$7u = 49$$

$$1u = 49 \div 7$$

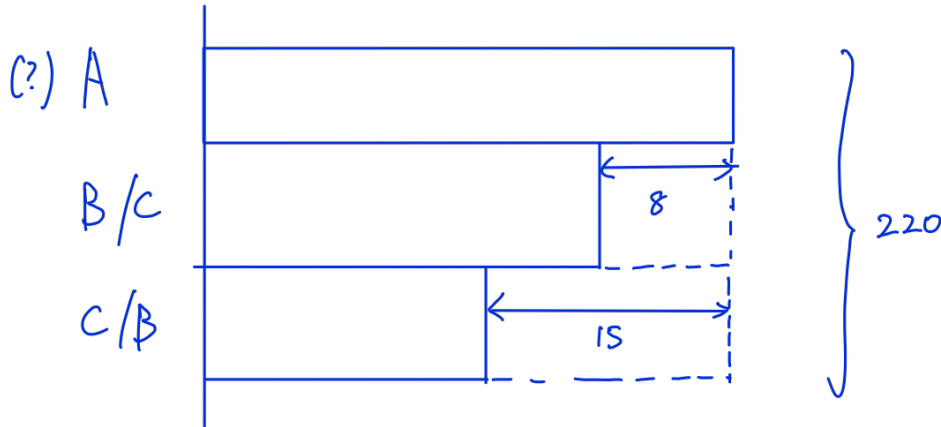
$$= 7$$

$$20u = 20 \times 7$$

$$= 140$$

Ans: \$140

4. There were 220 pupils in 3 classrooms labelled A, B and C. Classroom A had the most number of pupils. The differences in the number of pupils between Classroom A and the other two classrooms were 8 and 15. How many pupils were there in Class room A?



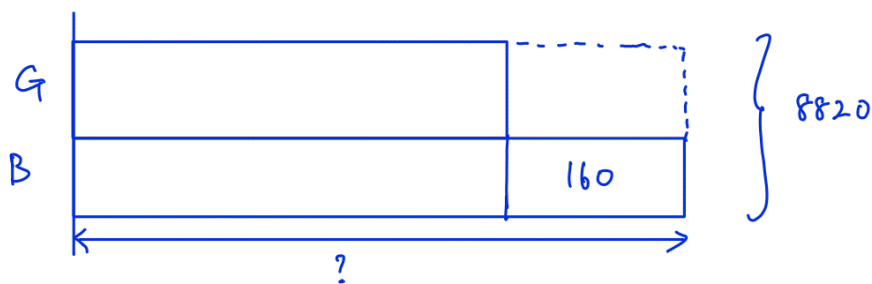
$$220 + 8 + 15 = 243$$

$$243 \div 3 = 81$$

Ans : 81

5. There were 20160 people performing for the National Day Parade. The ratio of the number of adults to the number of children was 9 : 7. There were 160 more boys than girls. How many boys were there?

A	C	Total
9 × 1260	7 × 1260	16 × 1260
11 340	88 20	20 160



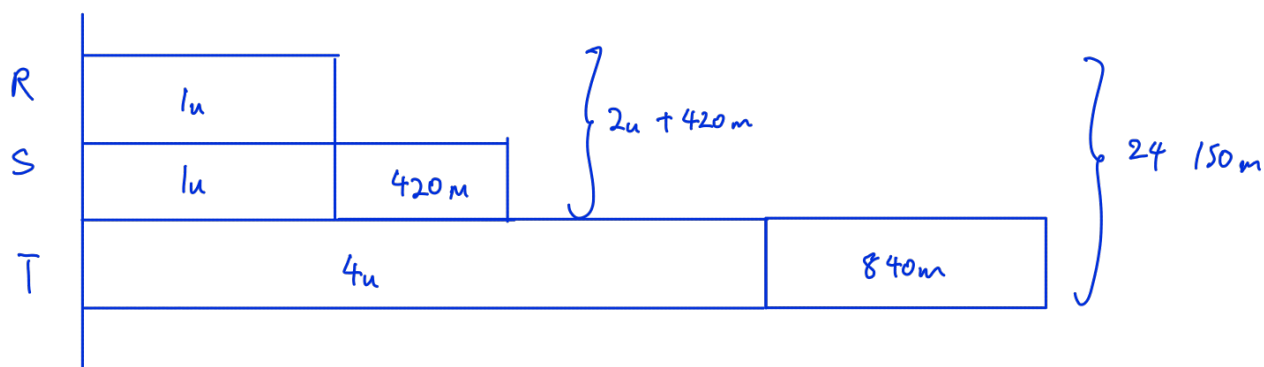
$$(8820 + 160) \div 2 = 4490$$

Ans: 4490

6. Ryan, Sean and Theodore jogged a total distance of 24.15 km during a fundraising marathon. *S jogged 420m more than R* (Ryan jogged 420 m less than Sean.) Theodore jogged twice the total distance of what Ryan and Sean jogged.
- a) What is the distance that Ryan jogged? Express your answer in metres. *2u + 420*
- b) For every 100 m that they jogged, they would raise \$1.50. How much money did Theodore manage to raise during the marathon?

(ACS P5 SA2 Paper 2 Q16)

$$24.15 \text{ km} = 24\,150 \text{ m}$$



$$6u = 24\,150 - 420 - 840$$

$$= 22\,890$$

a)  $1u = 22\,890 \div 6$

$$= 3815$$

b)  $4u + 840 = 4 \times 3815 + 840$

$$= 16\,100$$

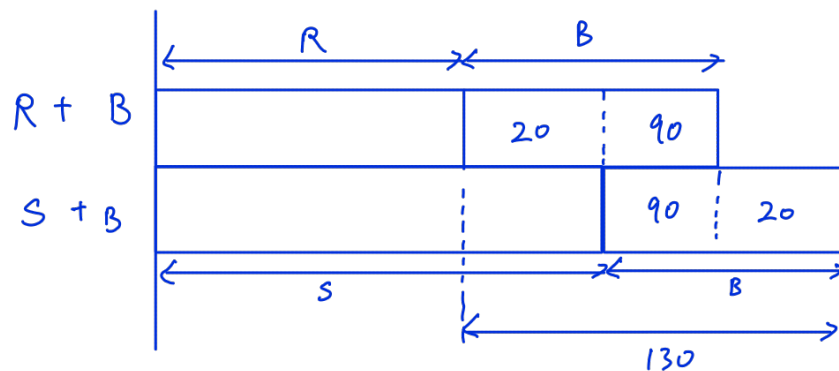
$$16\,100 \times 1.50 = 24\,150$$

Ans : a) 3815km

b) \$241.50

**CHALLENGE YOURSELF**

Rachel, Beatrice and Sylvia had 490 ribbons altogether.  
 Rachel and Beatrice had 90 ribbons more than Sylvia.  
 Sylvia and Beatrice had 130 ribbons more than Rachel.  
 How many ribbons did Beatrice have?



$$(130 - 90) \div 2 = 20$$

$$20 + 90 = 110 \quad (\text{Ans})$$