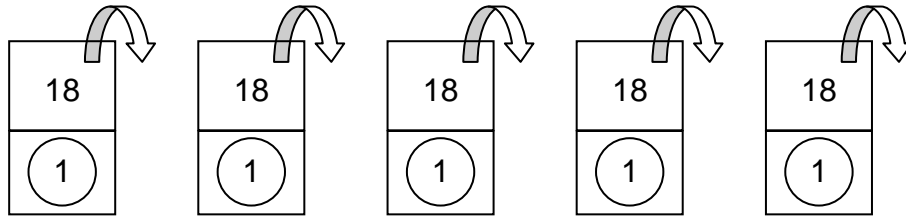


A Maths Question, PSLE 2011

There are 5 tins with same number of marbles in them. 18 marbles were taken away from each of them, and in the end, 5 of these tins have the same number of marbles as two of the original tins. How many marbles were there in each tin at first?



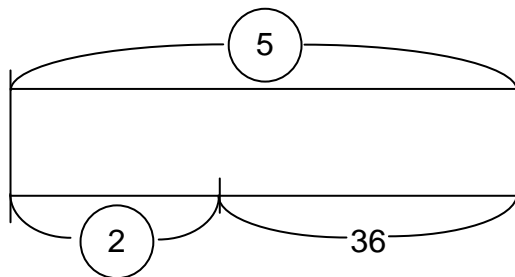
Let ① be the number of marbles left in each tin after 18 marbles were taken away.

<1> G. R. (Grasp the relation.)

$$5 \times \left[\begin{array}{c} \textcircled{1} \\ + 18 \end{array} \right] \times 2$$

$$1 \quad : \quad 1$$

<2> Diagram



<3> Writing

$$5 \times \textcircled{1} = \textcircled{5}$$

$$2 \times \textcircled{1} = \textcircled{2}$$

$$2 \times 18 = 36$$

$$36 \div (\textcircled{5} - \textcircled{2}) = 12 \rightarrow \textcircled{1}$$

$$18 + 12 = 30$$

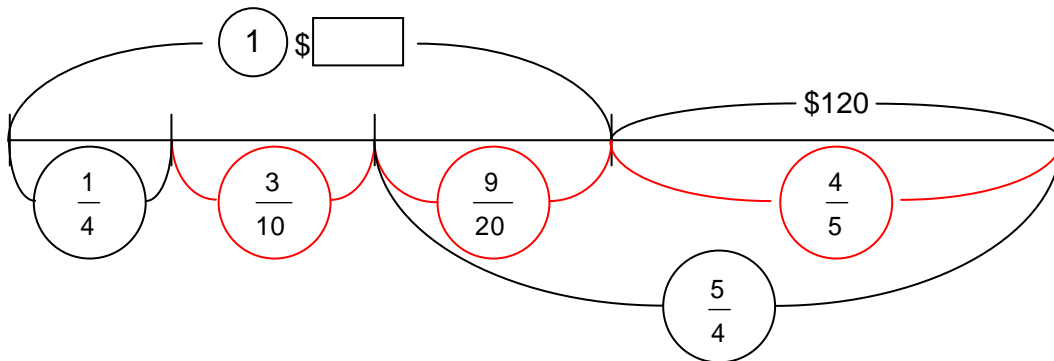
Answer 30

A Maths Question, PSLE 2011

Mr Tan spent $\frac{1}{4}$ of his money on a pair of shoes. He then spent $\frac{2}{5}$ of the remaining money on a bag. After he received \$120 from Mrs Tan, the ratio in the amount of money he had in the end to the amount of money he had at first became 5 : 4. How much money did Mr Tan have at first?

Let ① be the amount of money that Mr Tan had at first.

<1> Diagram



<2> Writing

$$1 - \frac{1}{4} = \frac{3}{4}$$

$$\frac{2}{5} \times \frac{3}{4} = \frac{3}{10} \quad \rightarrow \text{bag}$$

$$\frac{1}{4} + \frac{3}{10} = \frac{11}{20} \quad \rightarrow \text{amount of money he spent}$$

$$1 - \frac{11}{20} = \frac{9}{20} \quad \rightarrow \text{amount of money left}$$

(in the end) : (at first) = 5 : 4

$$5 \div 4 = \frac{5}{4} \quad \rightarrow \text{Amount of money in the end is } \frac{5}{4} \text{ times of the amount of money at first}$$

$$\frac{5}{4} - \frac{9}{20} = \frac{16}{20} = \frac{4}{5} \quad \rightarrow \$120$$

$$\$120 \div \frac{4}{5} = \$150 \quad \rightarrow \text{①}$$

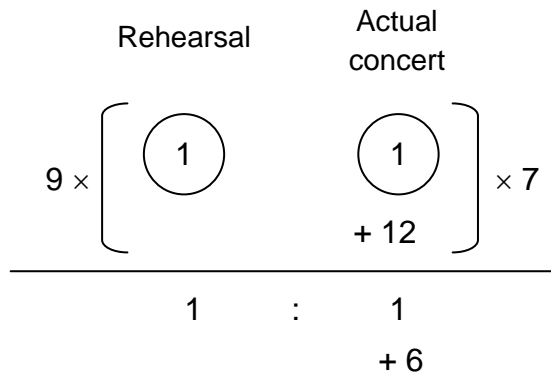
Answer \$150

A Maths Question, PSLE 2011

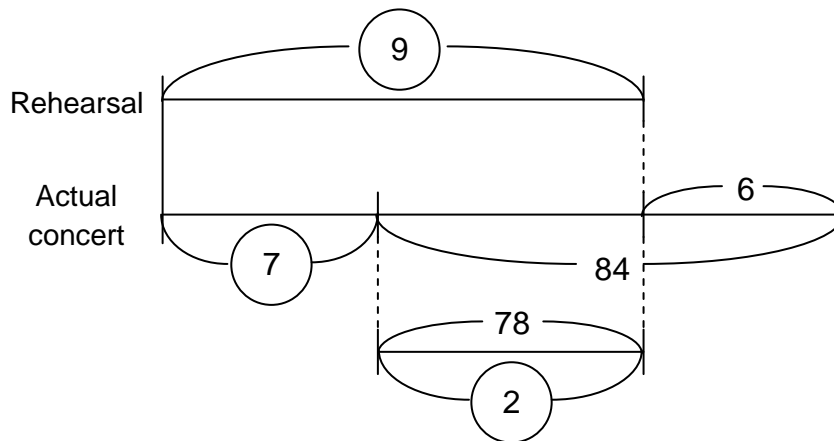
In a school hall rehearsal, there were 9 chairs in each row. After Mr Lim brought in 6 more chairs for the actual concert, each row had 7 chairs and 12 more rows. How many chairs were used for the actual concert?

Let ① be the number of rows in the rehearsal.

<1> G. R. (Grasp the relation.)



<2> Diagram



<3> Writing

$$12 \times 7 = 84$$

$$(84 - 6) \div (\textcircled{9} - \textcircled{7}) = 39 \rightarrow \textcircled{1}$$

$$(39 + 12) \times 7 = 357$$

Answer 357

A Maths Question, PSLE 2011

A fruit stall sells its pear at 70¢ and apples at 40¢. Sally bought some pears and Tom bought some apples. Sally spent \$1.10 more than Tom but had 7 less fruits than him.

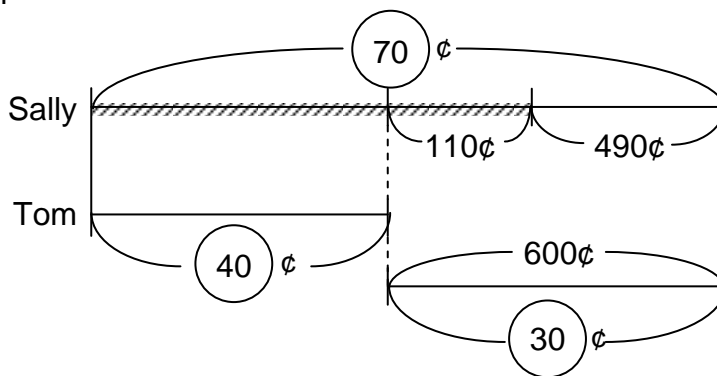
- a) How much pears did Sally buy?
 b) How much money did Tom spend?

Let ① be the number of apples that Tom bought.

<1> G. R. (Grasp the relation.)

$$\begin{array}{c}
 \text{Sally} \qquad \text{Tom} \\
 \left[\begin{array}{cc}
 \textcircled{1} & \textcircled{1} \\
 -7 &
 \end{array} \right] \\
 70¢ \times \qquad \qquad \times 40¢ \\
 \hline
 \qquad \qquad \qquad 1 \quad : \quad 1 \\
 \qquad \qquad \qquad + \$1.10
 \end{array}$$

<2> Diagram



<3> Writing

$$7 \times 70¢ = 490¢$$

$$110¢ + 490¢ = 600¢$$

$$70¢ - 40¢ = 30¢$$

$$600¢ \div 30¢ = 20 \rightarrow \textcircled{1}$$

$$20 - 7 = 13 \quad \rightarrow \text{the number of pears bought by Sally}$$

$$20 \times 40¢ = \$8 \quad \rightarrow \text{Tom spent}$$

Answer a) 13 b) \$8

A Maths Question, PSLE 2011

There are teachers and students that had bought tickets. The price of each ticket for a teacher is \$20 while that of a student costs \$8. The number of tickets bought by the teachers is $\frac{1}{4}$ of the total number of tickets bought. The amount of money collected from the students is \$416 more than that from the teachers. What is the total amount of money collected?

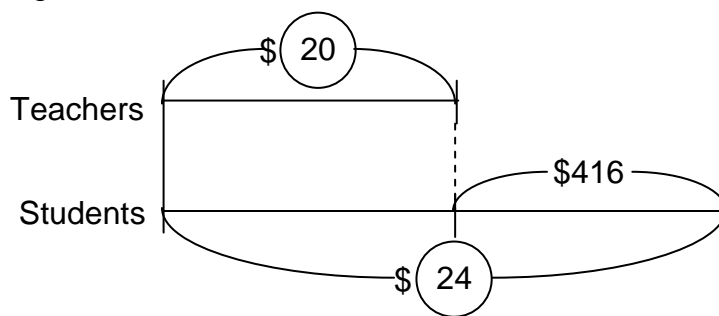
Let ① be the number of tickets bought by the teachers.

<1> G. R. (Grasp the relation.)

Teachers		Students
$\$20 \times \textcircled{1}$		$\textcircled{3} \times \$8$
1 : 1		
+ \$416		

The number of tickets bought by the teachers is $\frac{1}{4}$ of the total number of tickets bought.
 → The ratio of the number of tickets bought ⇒ ① : ③

<2> Diagram



<3> Writing

$$\textcircled{4} - \textcircled{1} = \textcircled{3}$$

$$\$8 \times \textcircled{3} = \$\textcircled{24}$$

$$\$20 \times \textcircled{1} = \$\textcircled{20}$$

$$\$24 - \$20 = \$\textcircled{4}$$

$$\$416 \div \$\textcircled{4} = 104 \quad \rightarrow \textcircled{1}$$

$$104 \times \$20 = \$2080 \quad \rightarrow \text{Teachers}$$

$$3 \times 104 \times \$8 = \$2496 \quad \rightarrow \text{Students}$$

$$\$2080 + \$2496 = \$4576$$

Answer \$4576