

A Maths Question, PSLE 2016

Four girls shared the cost of a cake equally. However, one of the girls divided the cost by 3 instead of 4. This caused each girl to pay \$2.40 more. What was the original share of each girl at first?

<< Multiple Diagram Maths >>

Let ⑫ be the cost of a cake.

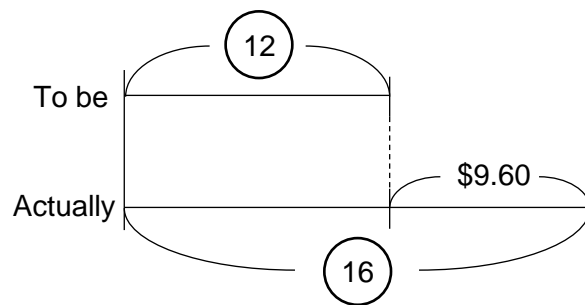
Each girl should pay ③ if they divide the cost equally by 4 girls.

Each girl should pay ④ if they divide the cost equally by 3 girls.

<G.R.>

To be		Actually
$4 \times \textcircled{3}$		$4 \times \textcircled{4}$
1 : 1		
		$+ 4 \times \$2.40$

<Diagram>



<Writing>

$$\begin{aligned} \textcircled{12} \div 3 &= \textcircled{4} \\ 4 \times \textcircled{4} &= \textcircled{16} \\ 4 \times \$2.40 &= \$9.60 \\ \$9.60 \div (\textcircled{16} - \textcircled{12}) &= \$2.40 \rightarrow \textcircled{1} \\ 3 \times \$2.40 &= \$7.20 \rightarrow \textcircled{3} \end{aligned}$$

Answer \$7.20