A, B & C can separately do a work in 2, 6 & 3-days respectively. Working together how much time would they require to do it? If the work earns them Rs 960, how should they divide the money?

Solution.

In 1 day A, B and C can do $\frac{1}{2}, \frac{1}{6}$ and $\frac{1}{3}$ of work respectively, so working together they can do:

$\frac{1}{2}+\frac{1}{6}+\frac{1}{3}=1$ of work (i.e. whole work) in one day.

A, B and C will do $\frac{1}{2}, \frac{1}{6}$ and $\frac{1}{3}$ of work respectively, so

A should get $\frac{1}{2}$ of whole sum, i.e. $960 * \frac{1}{2}=480$

B should get $\frac{1}{6}$ of whole sum, i.e. $960 * \frac{1}{6}=160$

C should get $\frac{1}{3}$ of whole sum, i.e. $960 * \frac{1}{3}=320$

Answer:

Working together A, B and C require 1 day to do work.

A should get Rs480, B should get Rs160 and C should get Rs320,