

Rate (III)– Challenging Rate Problems

GUIDED EXAMPLE 1

Paul and Ray worked together to paint a house.
During the job, Paul rested for 4 days and Ray took 2 days off.
However, they were not absent on the same day.
If they had done the same job alone,
Paul would have taken 18 days and Ray 12 days.
How long did the two painters take to complete painting the house?
(Henry park Pri/P6 Prelim/Q43)

GUIDED EXAMPLE 2

Ali, Ben and Charlie worked on a science project at different stages.
Ben worked on the project during the first 5 days.
Ali and Charlie then took over and worked together for the next 8 days.
After that, Ali was left to complete the remaining work in 9 days.
Given that Ben completed $\frac{2}{3}$ as much work as Ali while
Charlie completed thrice as much work as Ben,
how long will each of them take to complete the project without
the involvement of each other?

Facebook Live #17

GUIDED EXAMPLE 3

Machine A and Machine B working together take 7 days to finish producing 100 boxes of toys. Mr Lee switched on Machine A and Machine B for 4 days, followed by Machine A alone for 7 days. Then he needed to switched on Machine B for 1 more day to complete the same 100 boxes of toys. How long will Machine A alone take to produce the 100 boxes of toys?

GUIDED EXAMPLE 4

Jane takes 10 days to complete stringing a number of beads.
Sharon takes 18 days to complete the same job.
Jane started stringing the beads first and left the remainder to Sharon to complete.
They took 14 days to complete the job together.
How many says did Jane spend on the job?
(Raffles Girls. Pri/SA1/Q41)