Time Find the time between

1) 07.53 to 11.11

3 hrs 18 mins

$$\begin{array}{r} {}^{0\,0\,6+}\cancel{11}.{}^{0\,1}\cancel{11} \\ 07.53\ - \\ \hline 3.18 \end{array}$$

2) 15.18 to 10.07

5 hrs 11 min

$$\begin{array}{r} 15.18 \\ 10.07\ - \\ \hline 5.11 \end{array}$$

3) 16.25 to 19.42

3 hrs 17 min

$$\begin{array}{r} 19.{}^{3}\cancel{4}{}^{1}2 \\ 16.25\ - \\ \hline 3.17 \end{array}$$

4) 19.32 to 22.54

3 hrs 22 min

$$\begin{array}{r} {}^{1}\cancel{2}{}^{1}2.5\cancel{4} \\ 19.32\ - \\ \hline 3.22 \end{array}$$

5) 07.53 to 10.18

2 hrs 25 min

$$\begin{array}{r} {}^{0\,9\,6+}\cancel{10}.18 \\ 07.53\ - \\ \hline 2.25 \end{array}$$

6) 06.47 to 11.23

4 hrs 36 min

$$\begin{array}{r} {}^{0\,10\,6+\,1}\cancel{11}.\cancel{2}{}^{1}3 \\ 06.47\ - \\ \hline 4.36 \end{array}$$

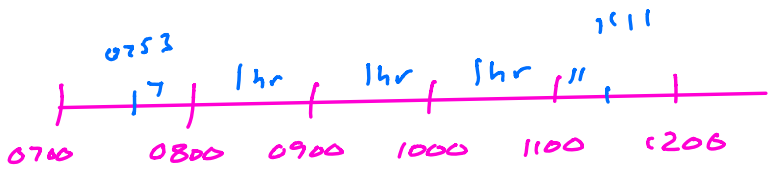
7) 08.55 to 12.04

3 hrs 9 min

$$\begin{array}{r} {}^{1\,11\,5\,6+\,1}\cancel{12}.\cancel{0}4 \\ 08.55\ - \\ \hline 3.09 \end{array}$$

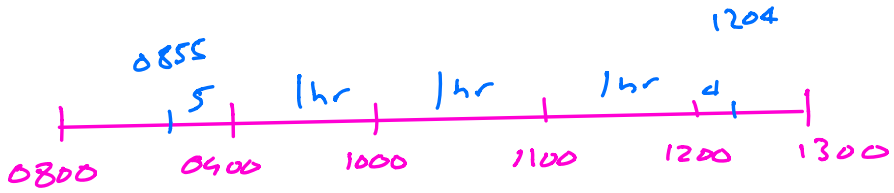
Alternative Method - Time Line

1) 07.53 to 11.11



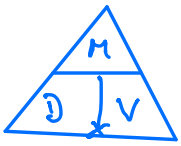
3hrs 18min

7) 08.55 to 12.04



3hr 9 min

Density



$$\text{Density} = \frac{\text{Mass}}{\text{Volume}}$$

$$\text{Volume} = \frac{\text{Mass}}{\text{Density}}$$

$$\text{Mass} = \text{Density} \times \text{Volume}$$

	Density	Vol	Mass
Alpha	5.2 g/cm³	35cm³	182g
Bravo	6.9 g/cm³	40cm³	276g
Charlie	4.2 g/cm³	17.86cm³	75g
		92.86cm³	533g

We form Delta by mixing together Alpha, Bravo and Charlie. Find the density of Delta

$$\text{Density} = \frac{\text{Total Mass}}{\text{Total Volume}}$$

$$= \frac{553\,g}{92.86\,cm^3}$$

$$= 5.74\ g/cm^3$$

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2)

	Density	Mass	Volume
Echo	$8.1\,g/cm^3$	$648\,g$	$80\,cm^3$
Foxtrot	$6.5\,g/cm^3$	$350\,g$	$53.85\,cm^3$
		$998\,g$	$133.85\,cm^3$

Golf made from Echo and Foxtrot

Find density of Golf

$$\text{Density} = \frac{\text{Total Mass}}{\text{Total Volume}} = \frac{998}{133.85}$$

$$= 7.46\ g/cm^3$$