$RANGE == 0..60$
channel $tick, time$
channel $out : RANGE \times RANGE$
channel $inc, minsReq$
channel $ans : RANGE$

chanset $Sync \mathrel{\widehat=} \{inc, minsReq, ans\}$

process $Seconds \mathrel{\widehat=}$
begin
$\quad$ **state** $SecSt \mathrel{\widehat=} [\, sec : RANGE \,]$

$\quad SecInit \mathrel{\widehat=} [\, SecSt' \mid sec' = 0 \,]$

$\quad IncSec \mathrel{\widehat=} [\, \Delta SecSt \mid sec' = (sec + 1) \bmod 60 \,]$

$\quad RunSec \mathrel{\widehat=} tick \rightarrow IncSec;\ (sec = 0)\ \&\ inc \rightarrow Skip$
$\qquad\qquad\qquad\qquad\qquad\qquad \Box\ (sec \neq 0)\ \&\ Skip$
$\qquad\qquad \Box\ time \rightarrow minsReq \rightarrow ans?mins \rightarrow out!(mins, sec) \rightarrow Skip$

$\quad \bullet\ SecInit;(\mu\, X \bullet RunSec;\ X)$
end

process $Minutes \mathrel{\widehat=}$
begin
$\quad$ **state** $MinSt \mathrel{\widehat=} [\, min : RANGE \,]$

$\quad MinInit \mathrel{\widehat=} [\, MinSt' \mid min' = 0 \,]$

$\quad IncMin \mathrel{\widehat=} [\, \Delta MinSt \mid min' = (min + 1) \bmod 60 \,]$

$\quad RunMin \mathrel{\widehat=} inc \rightarrow IncMin$
$\qquad\qquad \Box\ minsReq \rightarrow ans!min \rightarrow Skip$

$\quad \bullet\ MinInit;(\mu\, X \bullet RunMin;\ X)$
end

process $Chronometer \mathrel{\widehat=} (Seconds \,[\![\, Sync \,]\!]\, Minutes) \setminus Sync$