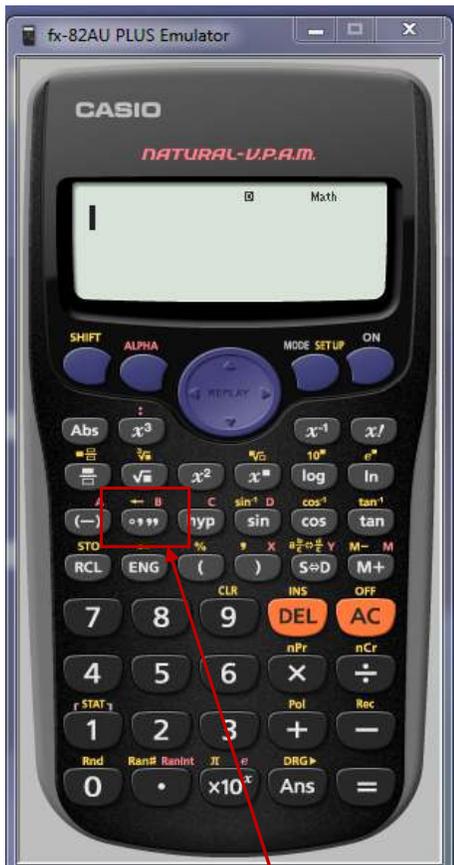


## Hours, minutes and seconds.

There are 24 hours in a day, 60 minutes in an hour and 60 seconds in a minute.



Using the [° ' "] key.

° represents hours, ' represents minutes and " represents seconds.

### 1. Conversions between decimals and ° ' ".

#### Example 1:

2.34 hours converted to ° ' ".

$$\begin{array}{r} 2.34 \\ \underline{117} \\ 50 \end{array}$$

Enter 2.34 into the calculator and press [=].

Press the [° ' "] key.

$$\begin{array}{r} 2.34 \\ \hline 2^{\circ}20'24'' \end{array}$$

**Answer:** 2 hours 20 minutes 24 seconds.

#### Example 2:

0.23 hours converted to ° ' ".

$$\begin{array}{r} 0.23 \\ \underline{23} \\ 100 \end{array}$$

Enter 0.23 into the calculator and press [=].

Press the [° ' "] key to convert.

$$\begin{array}{r} 0.23 \\ \hline 0^{\circ}13'48'' \end{array}$$

**Answer:** 13 minutes 48 seconds.

### Exercise 1

Convert the following times given in decimals to hours, minutes and seconds.

- 5.48 hours
- 23.554 hours
- 16.932 hours
- 1.47 hours
- 0.4734 hours
- 42.64 hours

### 2. Conversions between ° ' " and decimals.

#### Example 1:

3 hours 35 minutes 15 seconds converted to a decimal number.

Enter 3 [° ' "] 35 [° ' "] 15 [° ' "] then [=].

$$\begin{array}{r} 3^{\circ}35'15'' \\ \hline 3.5875 \end{array}$$

Press [SHIFT] [° ' "] gives:

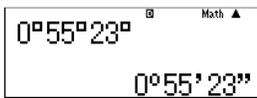
$$\begin{array}{r} 3^{\circ}35'15'' \\ \hline 3.5875 \end{array}$$

**Answer:**  $3^{\circ}35'15'' = 3.5875$  hours.

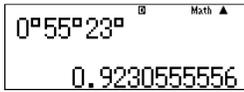
#### Example 2:

55 minutes 23 seconds converted to a decimal number.

Enter 0 [° ' "] 55 [° ' "] 23 [° ' "] then [=].



[SHIFT] [° ' "] gives:



**Answer:**  $0^\circ 55' 23'' = 0.9230555556$  hours.

### Exercise 2

Convert the following times given in decimals to hours, minutes and seconds.

- (a)  $12^\circ 5' 3''$
- (b)  $23^\circ 35' 43''$
- (c)  $2^\circ 0' 52''$
- (d)  $1^\circ 16' 8''$
- (e)  $65' 83''$
- (f)  $6' 47''$

### Answers:

#### Exercise 1

- (a)
- (b)
- (c)
- (d)
- (e)
- (f)

### Problem

Ironman competitors compete in a triathlon that involves a 3.8km swim, followed by a 180 km cycle and finishes with a marathon run of 42 km. Three friends compete and the table below shows their times for each component if the ironman event.

You are to write a newspaper article for the local newspaper to give a detailed account of how the three competitors jostled against each other as the race unfolded. Complete the table to assist you.

	Pete	Parota	Jarrhyd
Swim	57 min 43 sec	1 hr 1 min 25 sec	1 hr 10 min 4 sec
Transition	3 min 15 sec	2 min 35 sec	1 min 59 sec
Cycle	6 hr 15 min 17 sec	6 hr 20 min 33 sec	5hr 49 min 41 sec
Transition	2 min 21 sec	3 min 14 sec	4 min 2 sec
Run	3 hr 40 min 5 sec	3 hr 26 min 12 sec	3 hr 51 min 49 sec
Placing at end of the swim section	<b>1</b>	<b>2</b>	<b>3</b>
Placing at end of the section			
Placing at end of the triathlon			
Total time			

#### Exercise 2

- (a)
- (b)
- (c)
- (d)
- (e)
- (f)