TIMELY TIPS 1

Can you remember learning to tell the time? Did you work out the time from the position of the hands on a clock face or did you read off the numbers from a digital watch or clock? Whichever it was, we all need to be able to use both methods to tell the time and to calculate with time.

Some reminders

12-hour time:
We put the letters am after the time for the twelve hours from 12 o’clock midnight until 12 o’clock midday (noon):

<table>
<thead>
<tr>
<th>7.30am</th>
<th>2.10am</th>
<th>10.15am</th>
<th>8.15am</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.00 noon</td>
<td>11.35am</td>
<td>9.45am</td>
<td></td>
</tr>
</tbody>
</table>

We put the letters pm after the time for the twelve hours from 12 o’clock midday until 12 o’clock midnight:

<table>
<thead>
<tr>
<th>7.30pm</th>
<th>2.10pm</th>
<th>10.15pm</th>
<th>8.15pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.00 midnight</td>
<td>11.35pm</td>
<td>9.45pm</td>
<td></td>
</tr>
</tbody>
</table>

With 24-hour time:
We start from zero at midnight and keep counting the hours all the way past 12 o’clock midday until we get back to midnight again.

So:

<table>
<thead>
<tr>
<th>07:30</th>
<th>12:00</th>
<th>02:10</th>
<th>11:35</th>
<th>10:15</th>
<th>09:45</th>
<th>08:15</th>
</tr>
</thead>
<tbody>
<tr>
<td>19:30</td>
<td>00:00</td>
<td>14:10</td>
<td>23:35</td>
<td>22:15</td>
<td>21:45</td>
<td>20:15</td>
</tr>
</tbody>
</table>

Notice that four figures are used every time and there are two dots : between the hours and minutes.

Changing from 12-hour time to 24-hour time

To change the first 12 hours of the day from 12 hour to 24 hour, drop off the am and make sure you use four figures and put two dots between the hours and minutes:

7.30am → 07:30
To change the second 12 hours of the day from 12 hour to 24 hour, drop off the pm, add on 12 hours for the morning and put two dots between the hours and minutes:

10.15pm → 22:15

Changing from 24-hour time to 12-hour time

To change the first 12 hours of the day from 24 hour to 12 hour, drop off the zero at the beginning if there is one, use am and just put one dot between the hours and minutes:

07:30 → 7.30am

To change the second 12 hours of the day from 24 hour to 12 hour, take off 12 hours for the morning and use pm and just one dot:

22:15 → 10.15pm

Calculations with time

In everyday use we often ‘count on’ to work out time differences. Think about how you would solve the following common problem.

If my train from Kettering gets into St Pancras at 09:25, will I have enough time to cross London to catch a train to Winchester which leaves at 10:05 from Waterloo?

Leave Kettering Arrive at St Pancras 09:25 Catch train from Waterloo 10:05

You may have done the following:

Step 1 From 09:25 to 10:00 there are 35 minutes.
Step 2 From 10:00 to 10:05 there’s 5 minutes.
Step 3 Total time is 40 minutes.
Step 4 Consider the time it will take to walk to the Underground, get a tube to Waterloo and then walk to the station, find the right platform and get on the train.
Step 5 Decide it’s not enough time and so catch a later train to Winchester or an earlier one from Kettering. Or decide it is enough time.
Have a look at this other way of doing it and see if you can spot why the person gets a different answer:

\[
\begin{array}{c}
18:05 \\
9:15 \\
0:40 \\
\text{Ans is 40 mins}\n\end{array}
\]

They have changed the hour for 100 minutes instead of for 60 minutes.

If you want to do a ‘take away’ kind of sum with time then the thing to remember is:

There are 60 minutes in an hour

Try these using a take away kind of sum and check your answers using the ‘count on’ method.

1. I started work at 07:10 and worked straight through until 12:00. How long was this? (Make sure you give your answer in hours and minutes.)

2. I left home at 11.45am and arrived at 3.30pm. How long was I travelling? (First change the times to 24-hour format.)

It can help to put in hrs and mins as column headings.

To use a calculator for time problems you need to change the times to decimals. More on that later.