

## Y7 Maths Knowledge Organiser Topic 6: Time

What must I be able to do?	Key vocabulary	
<input type="checkbox"/> Measure time <input type="checkbox"/> Calculate with time ➤ Sparx M627, M515 <input type="checkbox"/> Solve time word problems ➤ Sparx M747, M963	Hour	Sixty minutes.
	Minute	Sixty seconds.
	Second	There are sixty seconds in one minute.
	Day	Twenty four hours.
	Month	A year is split into 12 months. Different months have a different number of days. 30 or 31 days and February has 28 and 29 in a leap year.
	Year	365 days, or 366 days in a leap year.

### Calculating with time

e.g. A television programme starts at 07:10 and finishes at 09:15. How long is it on for?

From 07:10 to 08:00 is 50 minutes. From 08:00 to 09:00 is 1 hour. From 09:00 to 09:15 is 15 minutes.

So in total it is 50 minutes + 1 hour + 15 minutes.

50 minutes + 15 minutes = 65 minutes = 1 hour 5 minutes.

So in total it is 1 hour + 1 hour 5 minutes = 2 hours 5 min.

This is 24hr notation. It is the same as 9:15 am.

### 12 hour vs 24 hour clock times

12 hour clock goes from 0 to 12 and includes the use of am (morning) and pm (afternoon). 24 hour clock uses numbers from 0 to 24 with anything larger than 12 representing an afternoon time.

12 hour clock	24 hour clock
12:00 am (midnight)	00:00 (start of the day)
1:00 am	01:00
2:00 am	02:00
3:00 am	03:00
4:00 am	04:00
5:00 am	05:00
6:00 am	06:00
7:00 am	07:00
8:00 am	08:00
9:00 am	09:00
10:00 am	10:00
11:00 am	11:00
12:00 pm (noon)	12:00 (noon)
1:00 pm	13:00
2:00 pm	14:00
3:00 pm	15:00
4:00 pm	16:00
5:00 pm	17:00
6:00 pm	18:00
7:00 pm	19:00
8:00 pm	20:00
9:00 pm	21:00
10:00 pm	22:00
11:00 pm	23:00
12:00 am	00:00 (end of the day)

Most countries use 24 hour clock these days but some countries such as America, New Zealand and Canada still use 12 hour clock.

### Months of the year

- |               |  |
|---------------|--|
| 1. January    |  |
| 2. February   |  |
| 3. March      |  |
| 4. April      |  |
| 5. May        |  |
| 6. June       |  |
| 7. July       |  |
| 8. August     |  |
| 9. September  |  |
| 10. October   |  |
| 11. November  |  |
| 12. Decemeber |  |
- Businesses often use the term **quarter** when referring to sections of the year.
- The first quarter is the first 3 months of the year, the second quarter is the next 3 months (May, June, July) and so on.

### Converting units of time

To change from seconds to minutes, divide by 60.

To change from minutes to hours, divide by 60.

To change from hours to minutes, multiply by 60.

To change from minutes to seconds, multiply by 60.

e.g. 245 minutes into hours and minutes is

$$245 \div 60 = 4.083333... \text{ hours}$$

So this is 4 whole hours plus some minutes.

$$4 \text{ hours is } 4 \times 60 = 240 \text{ minutes.}$$

$$245 \text{ minutes} - 240 = 5 \text{ minutes.}$$

So 245 minutes is 4 hours and 5 minutes.