

24-Hour Clock



Watch this YouTube video: <https://www.youtube.com/watch?v=kP0aBFFQ7Ks>

HOURS IN THE 24 HOUR CLOCK																								
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00
12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
am times									HOURS ON AN ANALOGUE CLOCK						pm times									

- Remember in the 24 hour clock, the hour should have 2 digits, even if it is less than 10 (e.g. 07:24).
- You do not need to use the words am and pm with the 24 hour clock.

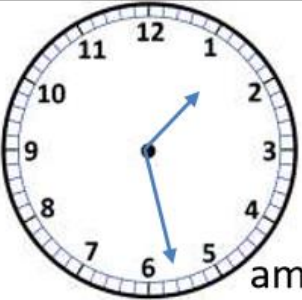
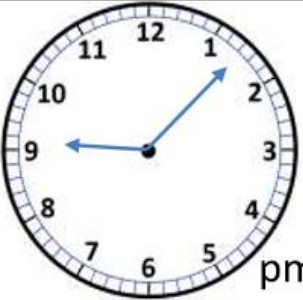
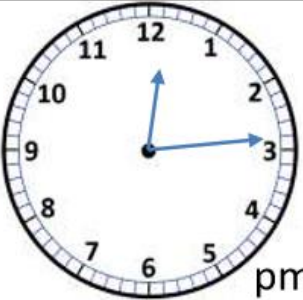
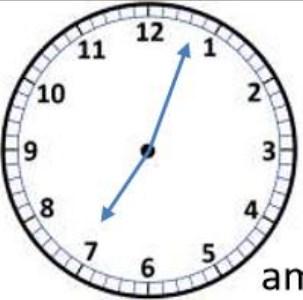
Ex A. Convert these am and pm into the 24-hour clock.

1)	7:35am =	2)	2:50pm =	3)	11:53am =
4)	5:16pm =	5)	1:35pm =	6)	3:40am =
7)	10:17pm =	8)	8:41pm =	9)	12:06am =

Ex B. Convert these 24-hour clock times to am and pm times.

1)	05:25 =	2)	15:10 =	3)	09:48 =
4)	12:28 =	5)	18:42 =	6)	13:31 =
7)	22:47 =	8)	00:56 =	9)	16:22 =

Ex C. Write the correct 24-hour clock with each analogue clock.

Ex D. Match the am/pm times to the correct 24-hour times.

10:20am	9:20pm	11:20am	8:20pm	
10:20	20:20	21:20	11:20	23:20

12:35am	2:35pm	1:35pm	12:35pm	
15:35	13:35	12:35	00:35	14:35

Ex E. Fill in the missing times in the table.

12 hour	24 hour
7:25am	07:25
2:15pm	
	14:30
	18:02
12:30am	
	23:40
12:28pm	

12 hour	24 hour
3:20am	
6:05pm	
	09:50
9:42pm	
	20:17
	15:24
10:17pm	

Ex F. Draw the correct time on the clock faces to match the 24-hour clock time. Write down am or pm in the bottom corner of each clock.

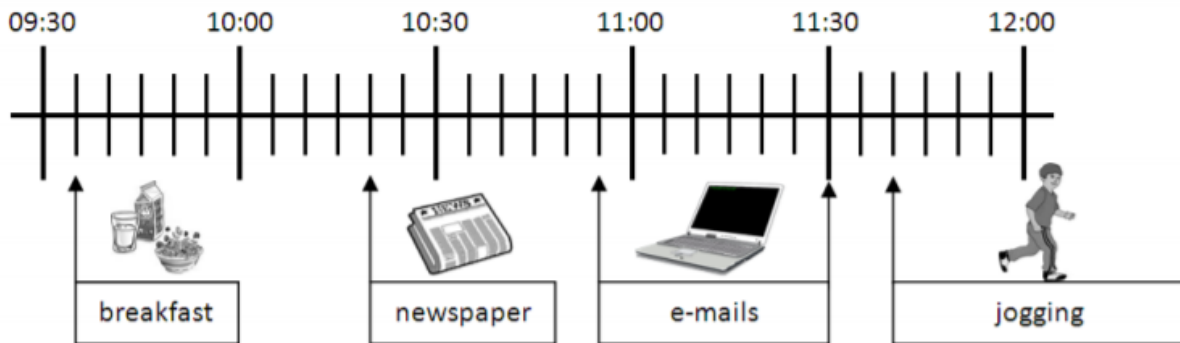
18:05

22:20

15:55

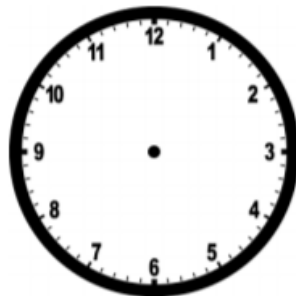
Ex 6. Solve this time word problem.

14. This **timeline** shows what Luke did on Sunday morning.



a) At what time did Luke **start breakfast** on Sunday?

Show this time on the clock below.



b) At what time did he **start** reading the **newspaper**?

c) **How long, in minutes,** did he spend reading his **e-mails**?

d) Luke spent **45 minutes** jogging.
At what time did Luke **stop jogging**?

Ex H. Determine the starting time for each problem.

- 1) Paul spent 3 hours and 55 minutes working on homework. If it was 7:40 when he finished, what time was it when he started?

- 2) Emily spent 2 hours and 50 minutes cleaning her room. If she finished at 4:25, what time did she start cleaning?

- 3) Isabel got out of the movie theater at 5:10. If the movie was 1 hour and 30 minutes long, what time did it start?

- 4) Adam spent 3 hours looking for his missing cat. If he finally found it at 9:40 what time did was it when he originally started looking?

- 5) Katie's parents got back from shopping at 6:00. If they had been gone for 1 hour and 45 minutes, what time did they originally leave?

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HOURS IN THE 24 HOUR CLOCK																								
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	00
12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
am times									HOURS ON AN ANALOGUE CLOCK						pm times									

- Remember in the 24 hour clock, the hour should have 2 digits, even if it is less than 10 (e.g. 07:24).
- You do not need to use the words am and pm with the 24 hour clock.

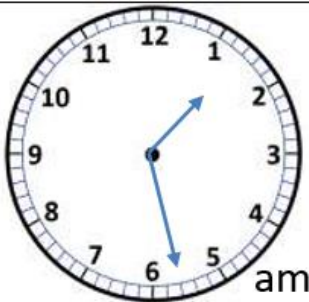
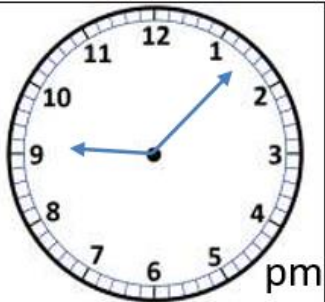
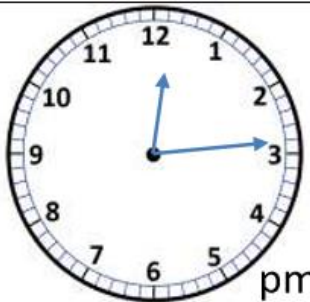
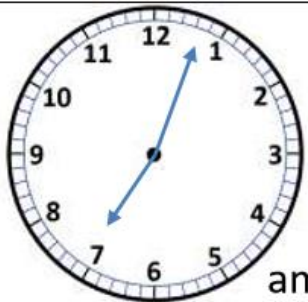
Ex A. Convert these am and pm into the 24-hour clock.

1)	7:35am = <u>07:35</u>	2)	2:50pm = <u>14:50</u>	3)	11:53am = <u>11:53</u>
4)	5:16pm = <u>17:16</u>	5)	1:35pm = <u>13:35</u>	6)	3:40am = <u>03:40</u>
7)	10:17pm = <u>22:17</u>	8)	8:41pm = <u>20:41</u>	9)	12:06am = <u>00:06</u>

Ex B. Convert these 24-hour clock times to am and pm times.

1)	05:25 = <u>5:25am</u>	2)	15:10 = <u>3:10pm</u>	3)	09:48 = <u>9:48am</u>
4)	12:28 = <u>12:28pm</u>	5)	18:42 = <u>6:42pm</u>	6)	13:31 = <u>1:31pm</u>
7)	22:47 = <u>10:47pm</u>	8)	00:56 = <u>12:56am</u>	9)	16:22 = <u>4:22pm</u>

Ex C. Write the correct 24-hour clock with each analogue clock.

			
<u>01:28</u>	<u>21:07</u>	<u>12:14</u>	<u>07:03</u>

Ex D. Match the am/pm times to the correct 24-hour times.

10:20am	9:20pm	11:20am	8:20pm	
10:20	20:20	21:20	11:20	23:20

Connections: 10:20am to 10:20; 9:20pm to 21:20; 11:20am to 11:20; 8:20pm to 20:20.

12:35am	2:35pm	1:35pm	12:35pm	
15:35	13:35	12:35	00:35	14:35

Connections: 12:35am to 00:35; 2:35pm to 14:35; 1:35pm to 13:35; 12:35pm to 12:35.

Ex E. Fill in the missing times in the table.

12 hour	24 hour
7:25am	07:25
2:15pm	<u>14:15</u>
<u>2:30pm</u>	14:30
<u>6:02pm</u>	18:02
12:30am	<u>00:30</u>
<u>11:40pm</u>	23:40
12:28pm	<u>12:28</u>

12 hour	24 hour
3:20am	<u>03:20</u>
6:05pm	<u>18:05</u>
<u>9:50am</u>	09:50
9:42pm	<u>21:42</u>
<u>8:17pm</u>	20:17
<u>3:24pm</u>	15:24
10:17pm	<u>22:17</u>

Ex F. Draw the correct time on the clock faces to match the 24-hour clock time. Write down am or pm in the bottom corner of each clock.

pm

18:05

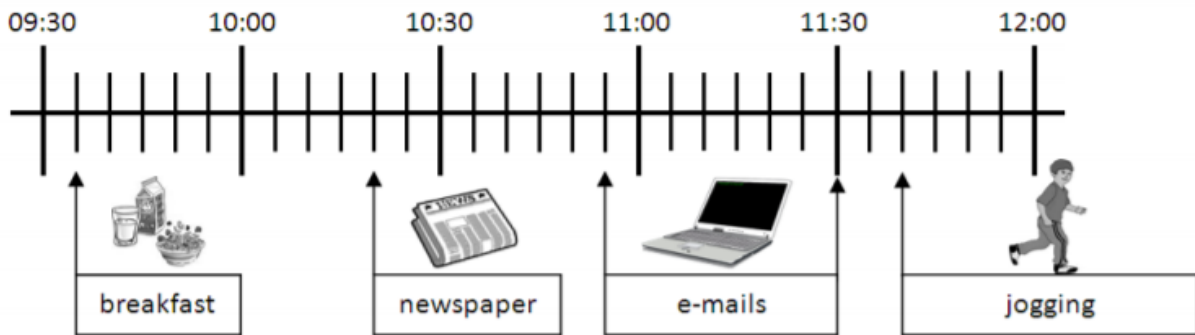
pm

22:20

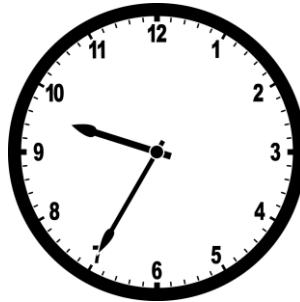
pm

15:55

14. This **timeline** shows what Luke did on Sunday morning.



- a) At what time did Luke **start breakfast** on Sunday?
Show this time on the clock below.



From 9:30 to 10:00, the line is divided into 6 equal parts. That means that each part represents 5 minutes.

This means that Luke started his breakfast at **9:35am**.

- b) At what time did he **start** reading the **newspaper**?

10:20

- c) How long, in minutes, did he spend reading his **e-mails**?

35 minutes

- d) Luke spent **45 minutes** jogging.
At what time did Luke **stop jogging**?

12:25

Ex H. Determine the starting time for each problem.

- 1) Paul spent 3 hours and 55 minutes working on homework. If it was 7:40 when he finished, what time was it when he started?

$$\begin{array}{r} 6 \text{ } 60+ \\ \cancel{7}:40 \\ - \quad 3:55 \\ \hline \quad \quad 3:45 \end{array}$$

- 2) Emily spent 2 hours and 50 minutes cleaning her room. If she finished at 4:25, what time did she start cleaning?

$$\begin{array}{r} 3 \text{ } 60+ \\ \cancel{4}:25 \\ - \quad 2:50 \\ \hline \quad \quad 1:35 \end{array}$$

- 3) Isabel got out of the movie theater at 5:10. If the movie was 1 hour and 30 minutes long, what time did it start?

$$\begin{array}{r} 4 \text{ } 60+ \\ \cancel{5}:10 \\ - \quad 1:30 \\ \hline \quad \quad 3:40 \end{array}$$

- 4) Adam spent 3 hours looking for his missing cat. If he finally found it at 9:40 what time did was it when he originally started looking?

$$\begin{array}{r} 9:40 \\ - \quad 3:00 \\ \hline \quad \quad 6:40 \end{array}$$

- 5) Katie's parents got back from shopping at 6:00. If they had been gone for 1 hour and 45 minutes, what time did they originally leave?

$$\begin{array}{r} 5 \text{ } 60+ \\ \cancel{6}:00 \\ - \quad 1:45 \\ \hline \quad \quad 4:15 \end{array}$$