1. What is $12: 30$ written as a 12 hour clock time?
2. A marble is put into a jar of treacle. It falls 2 cm every second through the treacle. Complete the table for the first eight seconds.

| Time <br> (secs) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Distance <br> $(\mathrm{cm})$ |  |  |  |  |  |  |  |  |

3. Each track on a French CD takes 3 minutes and 15 seconds.

Complete the table for the time taken for all the tracks on the CD.

| Track | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | 3 m 15 s |  |  |  |  |  |  |  |

4. Here is a timetable for sports at an activity centre.

| Times | Group A | Group B | Group C |
| :---: | :---: | :---: | :---: |
| $09: 00-10: 30$ | Hockey | Basketball | Netball |
| $10: 40-12: 00$ | Basketball | Netball | Hockey |
| $12: 50-14: 25$ | Trampolining | Hockey | Abseiling |
| $14: 40-16: 00$ | Netball | Abseiling | Trampolining |
| $17: 50-19: 35$ | Abseiling | Trampolining | Basketball |

Answer the following questions:
a. Which activity did Group B do between 10:40 and 12:00 ?
b. What is Group C doing at 15:00 ?
c. Which is the longest session?
d. For how much longer does Group A play hockey than basketball?
e. What is the total time in which games are played during the first three sessions of the day?
f. How long do you think the lunch break is?

1. What is 8.35 p.m. written as a 24 hour clock time?
2. A parachutist opens his parachute and travels downwards at a speed of 7.2 metres per second. Complete the table for his jump.

| Time <br> (secs) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distance <br> $(\mathrm{m})$ | 7.2 |  |  |  |  |  |  |  |

3. A bricklayer takes 5 mins 20 seconds to lay 10 bricks. Complete the table for his work.

| No. <br> Bricks | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | 5 m 20 s |  |  |  |  |  |  |  |

4. Here is a timetable for activities at a drama course for children.

| Times | Group A | Group B | Group C |
| :---: | :---: | :---: | :---: |
| $09: 15-11: 35$ | Make scenery | Rehearse | Make scenery |
| $11: 45-13: 15$ | Rehearse | Fit costumes | Rehearse |
| $14: 10-16: 35$ | Fit costumes | Make scenery | Apply makeup |
| $17: 20-20: 00$ | Apply makeup | Apply makeup | Fit costumes |
| $20: 15-21: 25$ | Perform | Perform | Perform |

Answer the following questions:
a. Which activity did Group C do between $14: 10$ and 16:35?
b. What is Group A doing at 10:25 ?
c. Which is the shortest session?
d. For how much longer does Group B make scenery than Group C?
e. How long is the performance?
f. How long is the morning break?

The Maths Rats are demonstrating their new assault course.


Swim
the Pond

Here are the Maths Rats times (in seconds) at each obstacle:

|  | Addy | Divvy | Multy | Subby |
| :--- | :---: | :---: | :---: | :---: |
| Wall | 25.2 | 37.5 | 23.9 | 22.8 |
| Tunnel | 67.3 | 55.8 | 53.7 | 62.9 |
| High Tyres | 45.9 | 46.8 | 51.1 | 43.7 |
| Blanket | 28.7 | 26.5 | 31.3 | 32.5 |
| Swimming the Pond | 73.9 | 78.3 | 67.4 | 74.8 |
| Stepping Tyres | 15.8 | 21.7 | 18.5 | 23.7 |

## Answer the questions on the next page.

1. How long did Divvy take to get over the wall?
2. How long did Multy take to swim the pond?
3. What was the total time taken by each Maths Rat for the course?
4. Which rat had the best time and which the worst?

What was the difference in these time?
5. What was the average time taken to get through the tunnel?
6. Put the times taken for the stepping tyres in order with the shortest first.
7. Put the times taken for swimming the pond in order with the longest first.
8. Put Subby's times for each obstacle on this block graph. The Wall time has been done for you.

Time
(Secs)


One of these guys is a champ!


## 1. Here are the rules to decide if a year is a leap year or not:

Normally a year is a leap year if its number is divisible by 4 , but.....
it is not a leap year if it divisible by 100 , unless ...
it is also divisible by 400 !
Which of these years will be or were leap years?

1980, 1986, 1950, 1900, 2000, 2400, 3000, 3444, 3560
2. Copy and complete this rhyme:

30 days hath September.....

## 3. Here's a puzzle to finish with.

A woman has a clock that strikes the number of hours every hour (e.g. it strikes four times at four o'clock). It also strikes once every half hour.

She goes into her house and as she opens the front door she hears the clock strike once.
Half an hour later it strikes again.
Half an hour later it strikes again.
Half an hour later it strikes again.
Half an hour later, just as she is going out of the door, she hears it strike once again.

What time was it as she entered the house and what time was it as she left again?


## Answers

## Page 1

1. $12.30 \mathrm{p} . \mathrm{m}$.
2. $\begin{array}{lllllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8\end{array}$ $\begin{array}{llllllll}2 & 4 & 6 & 8 & 10 & 12 & 14 & 16\end{array}$
$\begin{array}{llllllll}3 . & 2 & 3 & 4 & 5 & 6 & 7 & 8\end{array}$ $3 \mathrm{~m} 15 \mathrm{~s} \quad 6 \mathrm{~m} 30 \mathrm{~s} \quad 9 \mathrm{~m} 45 \mathrm{~s} \quad 13 \mathrm{~m} 00 \mathrm{~s} \quad 16 \mathrm{~m} 15 \mathrm{~s} \quad 19 \mathrm{~m} 30 \mathrm{~s} \quad 22 \mathrm{~m} 45 \mathrm{~s} \quad 26 \mathrm{~m} 00 \mathrm{~s}$
3. a. Netball
b. Trampolining
c. $17: 50$ to
19:35
d. 10 minutes
e. 4 hrs 25 mins
f. 50 mins

## Page 2

1. $20: 35$
$\begin{array}{lllllllll}\text { 2. } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8\end{array}$
$\begin{array}{llllllll}7.2 & 14.4 & 21.6 & 28.8 & 36.0 & 43.2 & 50.4 & 57.6\end{array}$
$\begin{array}{lllllllll}3 . & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8\end{array}$
$5 \mathrm{~m} 20 \mathrm{~s} \quad 10 \mathrm{~m} 40 \mathrm{~s} \quad 16 \mathrm{~m} 0 \mathrm{~s} \quad 21 \mathrm{~m} 20 \mathrm{~s} \quad 26 \mathrm{~m} 40 \mathrm{~s} \quad 32 \mathrm{~m} 00 \mathrm{~s}$ 37m 20s 42 m 40 s
2. a. Apply makeup
b. Making scenery
c. $20: 15$ to $21: 25$
d. 5 minutes
e. 1 hrs 10 mins
f. 10 mins

## Page 4

1. 37.5 secs 2. 67.4 secs
2. Addy 256.8 s Divvy 266.6s Multy 245.9s Subby 260.4s
3. Best: Multy Worst: Divvy 20.7 secs 5. 59.925 seconds
4. $15.8 \mathrm{~s}, 18.5 \mathrm{~s}, 21.7 \mathrm{~s}, 23.7 \mathrm{~s}$
$7.78 .3 \mathrm{~s}, 74.8 \mathrm{~s}, 73.9 \mathrm{~s}, 67.4 \mathrm{~s}$
5. Draw the graph

## Page 5

1. 1980, 2000, 2400, 3444, 3560
2. Thirty days hath September, April, June and November.

All the rest have 31, except in February alone,
Which has but 28 days clear and 29 days in each leap year.
3. She arrived on the last stroke of 12 o'clock and left on the first stroke of 2 o'clock.

