





Steps to Success

| Lockdown  |                                  |
|---|----------------------------------|
| Date  | <b>02.03.21</b>                  |
| Subject/s   | <b>Maths</b>                     |
| Learning Objective<br> | To convert between units of time |

|   |   | SA<br> | TA<br> |
|---|---|---|---|
| Success Criteria<br> | I know<br>60 seconds = 1 minute<br>1 hour = 60 minutes<br>7 days = 1 week<br>52 weeks = 1 year<br>365 days = 1 year<br>I can use my knowledge of multiples to convert between units of time |   |   |
| Support   | Independent   | Adult Support ( )   | Group Work  |

Pre-task:

Complete the table.

| Days     | Weeks/ Weeks and Days |
|----------|-----------------------|
| 42 days  |                       |
|          | 5 weeks and 5 days    |
|          | 10 weeks and 5 days   |
| 100 days |                       |

1 hour = 60 minutes    1 minute = 60 seconds

Use this information to complete the conversions.

75 minutes = 1 \_\_\_\_\_ and 15

240 \_\_\_\_\_ = 4 minutes

3 \_\_\_\_\_ and 24 \_\_\_\_\_ = 204

Is there more than one way to complete the last one?

<https://vimeo.com/436507740>

## Fluency

### A

Copy and complete.

- 1  seconds = 3 minutes
  - 2 300 seconds =  minutes
  - 3  minutes = 7 hours
  - 4 120 minutes =  hours
  - 5  days = 2 weeks
  - 6  days = 5 weeks
  - 7 21 days =  weeks
  - 8 70 days =  weeks
  - 9  months = 4 years
  - 10  months = 20 years
  - 11 60 months =  years
  - 12 96 months =  years
- 13 How many complete weeks and days are there in:  
a) April                      b) May?
- 14 How many minutes are there in two and a half hours?

### B

Copy and complete.

- 1  seconds = 1 minute 47 seconds
- 2 500 seconds =  minutes  seconds
- 3  minutes = 2 hours 35 minutes
- 4 419 minutes =  hours  minutes
- 5  hours = 5 days 17 hours
- 6 100 hours =  days  hours
- 7  days = 2 weeks 3 days
- 8 40 days =  weeks  days
- 9  months = 3 years 6 months
- 10 70 months =  years  months
- 11 There are exactly 13 complete weeks in the first three months of a year. Is it a leap year?
- 12 A ship leaves port at 14:45 on Sunday. It returns at 09:20 on Wednesday. How long was the voyage in days, hours and minutes?

### C

- 1 Adrian's marathon time is 2 hours 58 minutes and 39 seconds. This is 213 seconds faster than his previous best time. What was his previous best time?
- 2 It is Tuesday. There are 100 days until Christmas Day.  
a) What is the date that Tuesday?  
b) What day is Christmas Day?
- 3 Ivan leaves Moscow at 10:27 on 26th June. He arrives in Vladivostok at 16:05 on 2nd July. How long has his journey taken in days, hours and minutes?
- 4 A machine makes one bolt every second. How long will it take to make 10 000 bolts?
- 5 How many weeks and days are there in:  
a) the first 4 months of 2020  
b) the last 6 months of 2020?
- 6 How many hours are there in July?

## Answers

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### **A**

- |              |             |             |               |
|--------------|-------------|-------------|---------------|
| <b>1</b> 180 | <b>4</b> 2  | <b>7</b> 3  | <b>10</b> 240 |
| <b>2</b> 5   | <b>5</b> 14 | <b>8</b> 10 | <b>11</b> 5   |
| <b>3</b> 420 | <b>6</b> 35 | <b>9</b> 48 | <b>12</b> 8   |

**13 a)** 4 weeks 2 days

**b)** 4 weeks 3 days

**14** 150

### **B**

- |                           |                                    |
|---------------------------|------------------------------------|
| <b>1</b> 107 secs.        | <b>7</b> 17 days                   |
| <b>2</b> 8 mins. 20 secs. | <b>8</b> 5 weeks 5 days            |
| <b>3</b> 155 mins.        | <b>9</b> 42 months                 |
| <b>4</b> 6 hours 59 mins. | <b>10</b> 5 years 10 months        |
| <b>5</b> 137 hours        | <b>11</b> It is a leap year        |
| <b>6</b> 4 days 4 hours   | <b>12</b> 2 days 18 hours 35 mins. |

### **C**

- |                                   |                                    |
|-----------------------------------|------------------------------------|
| <b>1</b> 3 hours 2 mins. 12 secs. | <b>4</b> 2 hours 46 mins. 40 secs. |
| <b>2 a)</b> 16th September        | <b>5 a)</b> 17 weeks 2 days        |
| <b>b)</b> Thursday                | <b>b)</b> 23 weeks 3 days          |
| <b>3</b> 6 days 5 hours 38 mins.  | <b>6</b> 744 hours                 |

## Problem Solving and Reasoning

Use it!



Explain it!



Three children are running a race.

- Tim finishes the race in 3 minutes 5 seconds.
- Lila finishes the race in 192 seconds.
- Pip finishes the race in 2 minutes and 82 seconds.

Who finishes the race first?



Use it!



Lucy's birthday is in March.  
Jason's birthday is in April.  
Lucy is 96 hours older than Jason.  
What dates could Lucy's and Jason's birthdays be?



**Answers**

Tim: 3 min 5 s

Lila: 3 min 12 s

Pip: 3 min 22 s

Tim finishes the  
race first.

Lucy: 28th March,

29th March, 30th

March, 31st March

Jason: 1st April, 2nd

April, 3rd April, 4th

April

Children choose

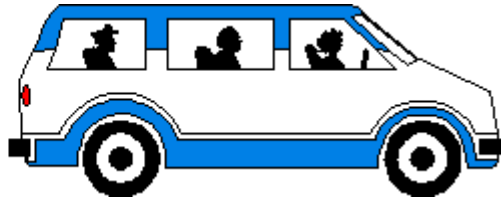
dates 4 days apart.

## Further Challenge

A group of 10 students are on a field trip when their bus breaks down 40 miles away from the school.

A teacher takes 5 of them back to school in her car, travelling at an average speed of 40 miles per hour.

The other 5 students start walking towards school at a steady 4 miles per hour.



The teacher drops the 5 at school, then immediately turns around and comes back for the others, again travelling at a steady speed of 40 miles per hour.

**How far have the students walked by the time the car reaches them?**