Workings and final answer.

What have we learned?

What other mathematical techniques do we need to apply?

What useful information do we know?

**REMEMBER**! Accuracy and spelling of key words \* Appropriate paragraphing and sequencing of information presented \* Correct phrasing – capitals, punctuation.

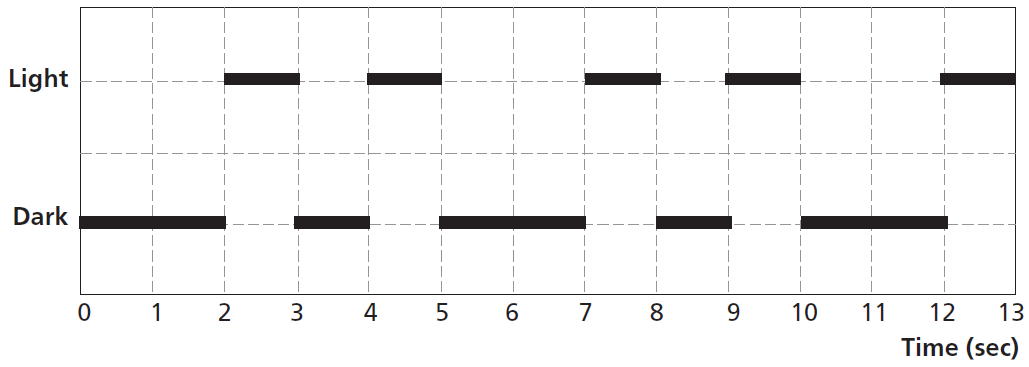
What do we want to find out?

Mathematics Unit 43: Lighthouse

Lighthouses are towers with a light beacon on top. Lighthouses assist sea ships in finding their way at night when they are sailing close to the shore.

A lighthouse beacon sends out light flashes with a regular fixed pattern. Every lighthouse has its own pattern.

In the diagram below you see the pattern of a certain lighthouse. The light flashes alternate with dark periods.

It is a regular pattern. After some time the pattern repeats itself. The time taken by one complete cycle of a pattern, before it starts to repeat, is called the *period*. When you find the period of a pattern, it is easy to extend the diagram for the next seconds or minutes or even hours.

Workings and final answer.

What have we learned?

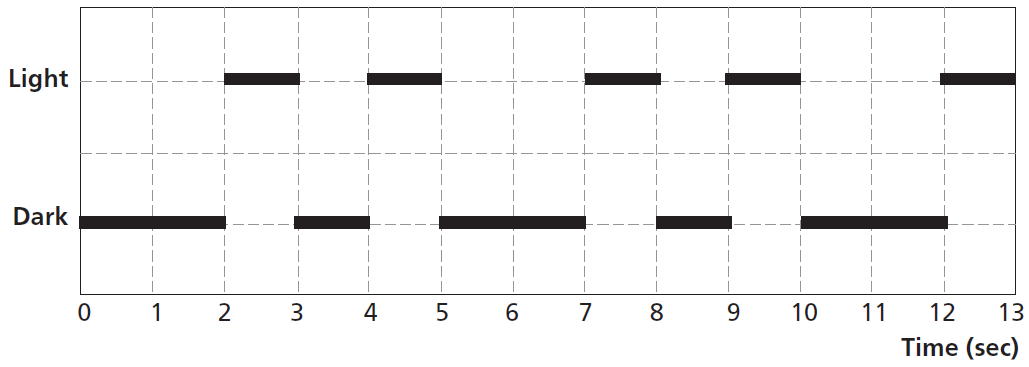
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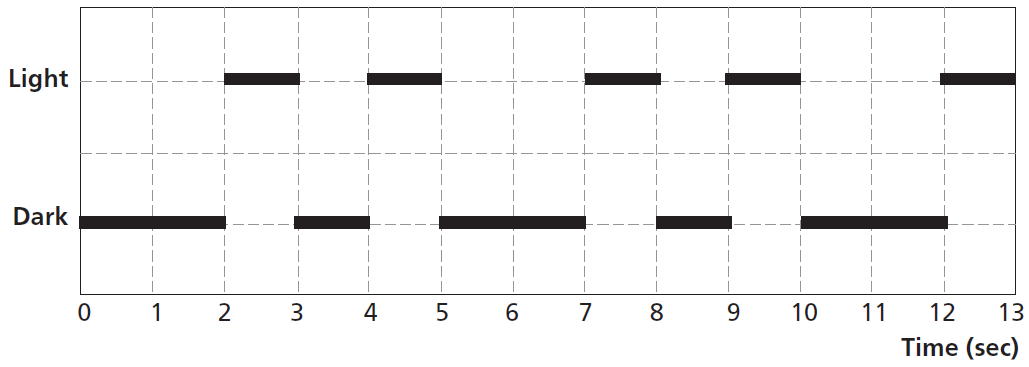
What do we want to find out?

Mathematics Unit 43: Lighthouse

In the diagram below you see the pattern of a certain lighthouse. The light flashes alternate with dark periods.  
  
It is a regular pattern. After some time the pattern repeats itself. The time taken by one complete cycle of a pattern, before it starts to repeat, is called the *period*.

**QUESTION 43.1**  
Which of the following could be the period of the pattern of this lighthouse?

1. 2 seconds.
2. 3 seconds.
3. 5 seconds.
4. 12 seconds.

In the diagram below you see the pattern of a certain lighthouse. The light flashes alternate with dark periods.  
  
It is a regular pattern. After some time the pattern repeats itself. The time taken by one complete cycle of a pattern, before it starts to repeat, is called the *period*.

**QUESTION 43.2**For how many seconds does the lighthouse send out light flashes in 1 minute?

1. 4
2. 12
3. 20
4. 24

Workings and final answer.

What have we learned?

What other mathematical techniques do we need to apply?

What useful information do we know?

**REMEMBER**! Accuracy and spelling of key words \* Appropriate paragraphing and sequencing of information presented \* Correct phrasing – capitals, punctuation.

What do we want to find out?

Mathematics Unit 7: Speed of Racing Car

Workings and final answer.

What have we learned?

What other mathematical techniques do we need to apply?

What useful information do we know?

**REMEMBER**! Accuracy and spelling of key words \* Appropriate paragraphing and sequencing of information presented \* Correct phrasing – capitals, punctuation.

What do we want to find out?

Mathematics Unit 43: Lighthouse

Workings and final answer.

What have we learned?

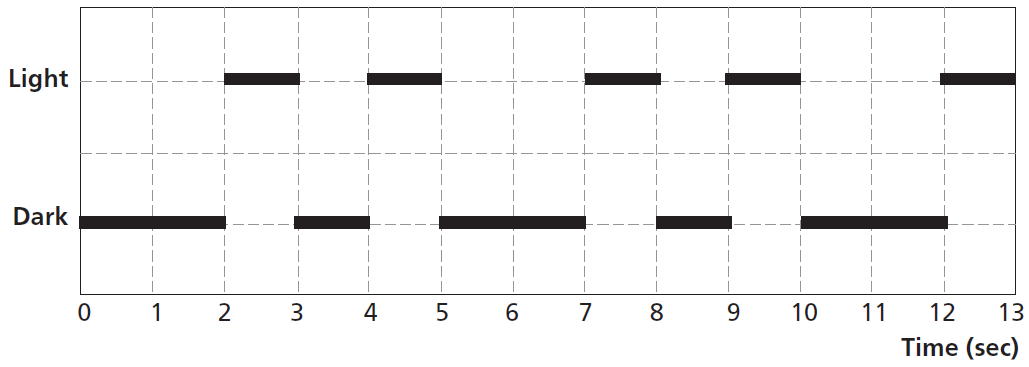
What other mathematical techniques do we need to apply?

What useful information do we know?

**REMEMBER**! Accuracy and spelling of key words \* Appropriate paragraphing and sequencing of information presented \* Correct phrasing – capitals, punctuation.

What do we want to find out?

Mathematics Unit 43: Lighthouse

In the diagram below you see the pattern of a certain lighthouse. The light flashes alternate with dark periods.  
  
**QUESTION 43.3**  
In the diagram below, make a graph of a possible pattern of light flashes of a lighthouse that sends out light flashes for 30 seconds per minute. The period of this pattern must be equal to 6 seconds.  
