Logarithmic Scales
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Overview

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In this document, you'll learn:

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In this document, you'll learn:

- what logarithmic scales are

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In this document, you'll learn:

- what logarithmic scales are
- how to use them

Logarithmic scales

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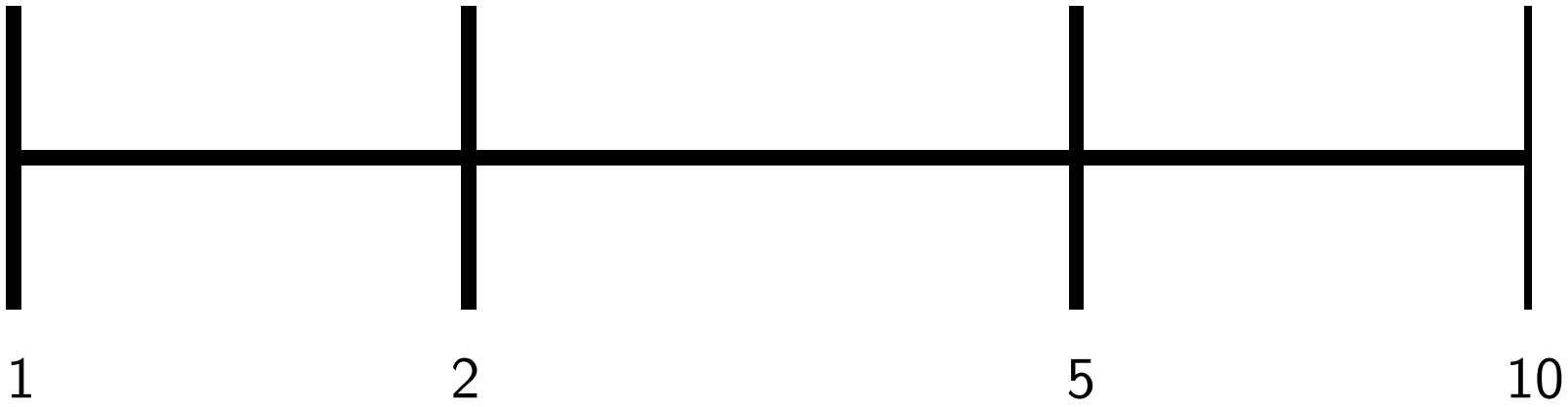
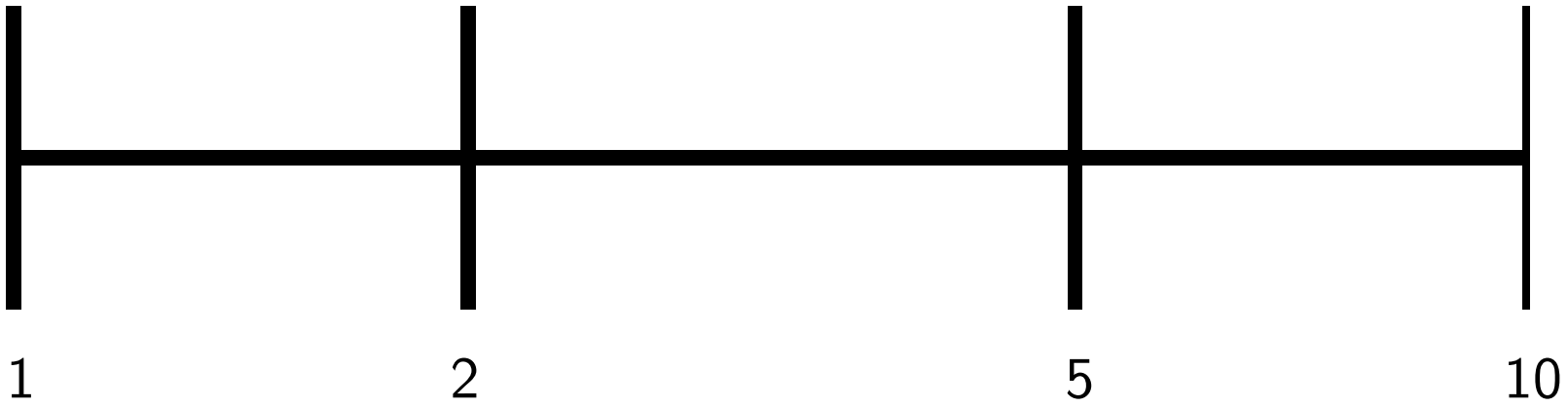
  A *cycle* is the space between two numbers which differ by a factor of ten.

  So, between 1 and 10 is one cycle, between 2 and 20 is one cycle, between 5 and 50 is one cycle, etc.


1
2
5
10



Single cycle log scale

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- ⋮

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- 1 and 10
- 2 and 20
- 5 and 50

  ⋮

- 100 and 1000

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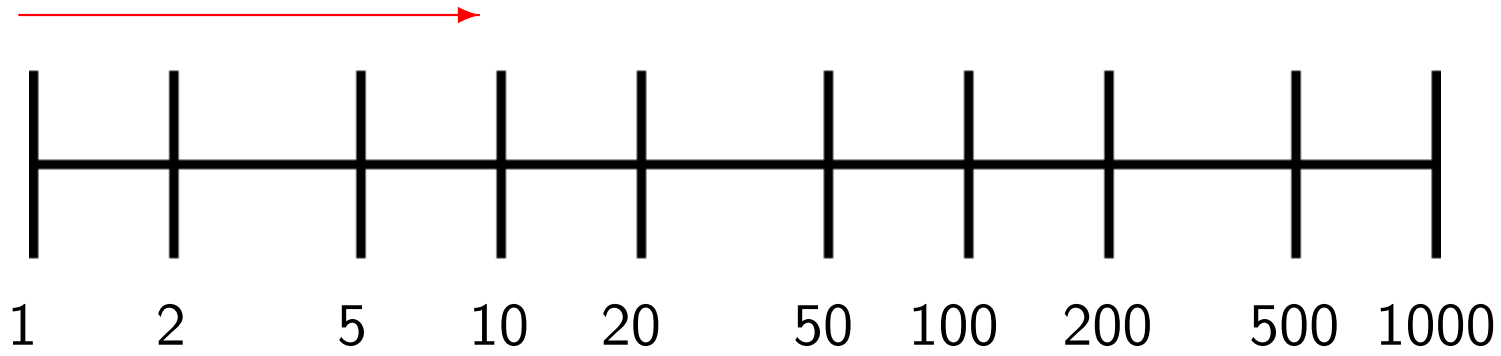
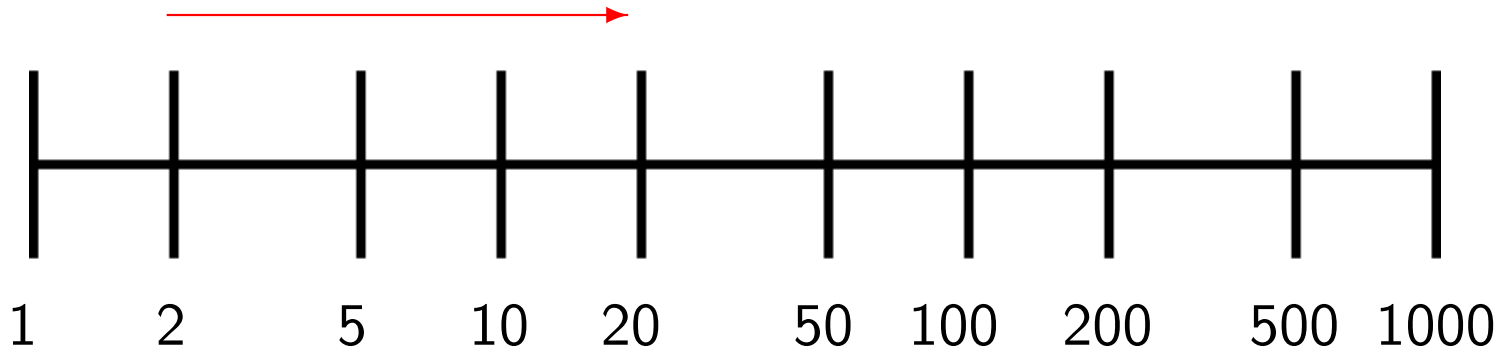
  ⋮

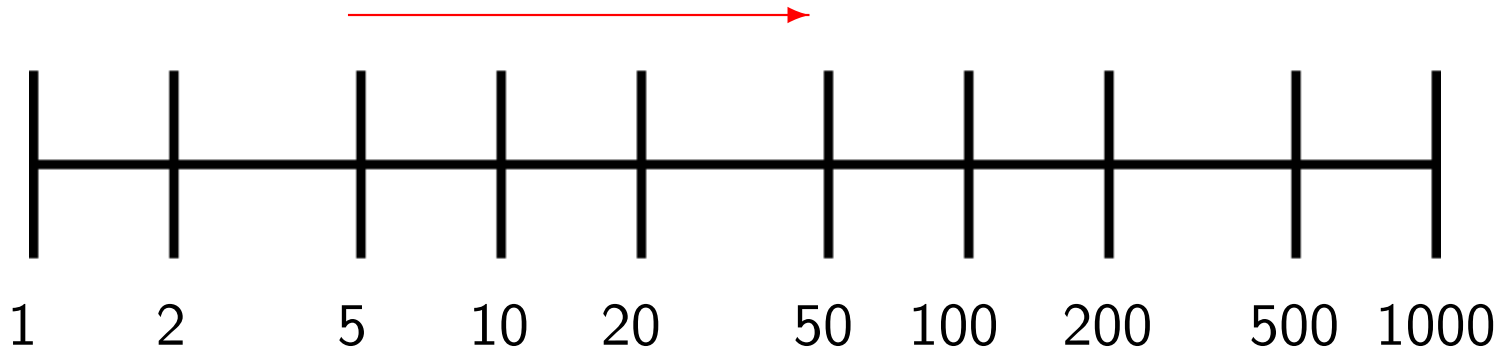
- 100 and 1000



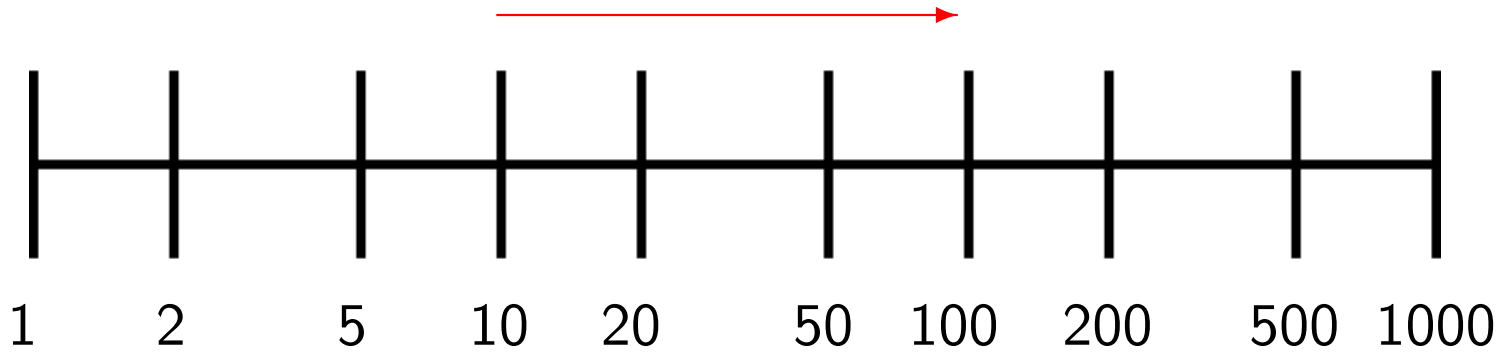
$1 \rightarrow 10$ is a cycle



$2 \rightarrow 20$ is a cycle



$5 \rightarrow 50$ is a cycle



$10 \rightarrow 100$ is a cycle

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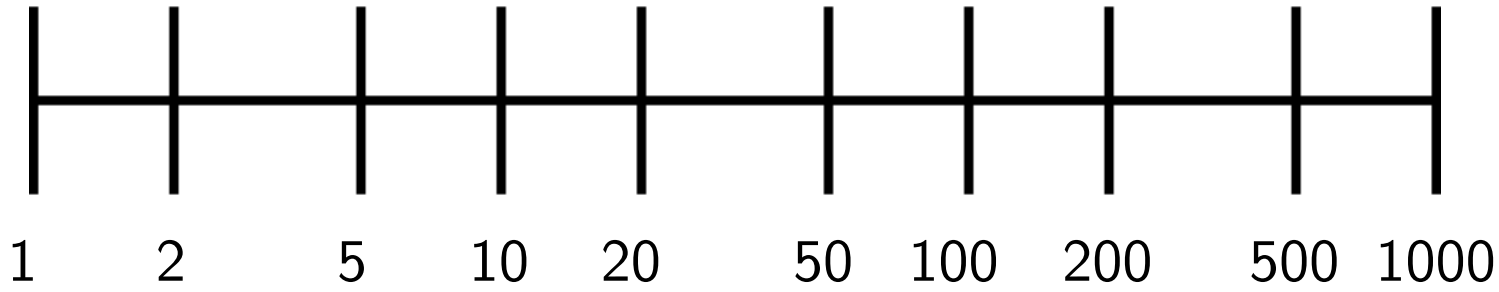
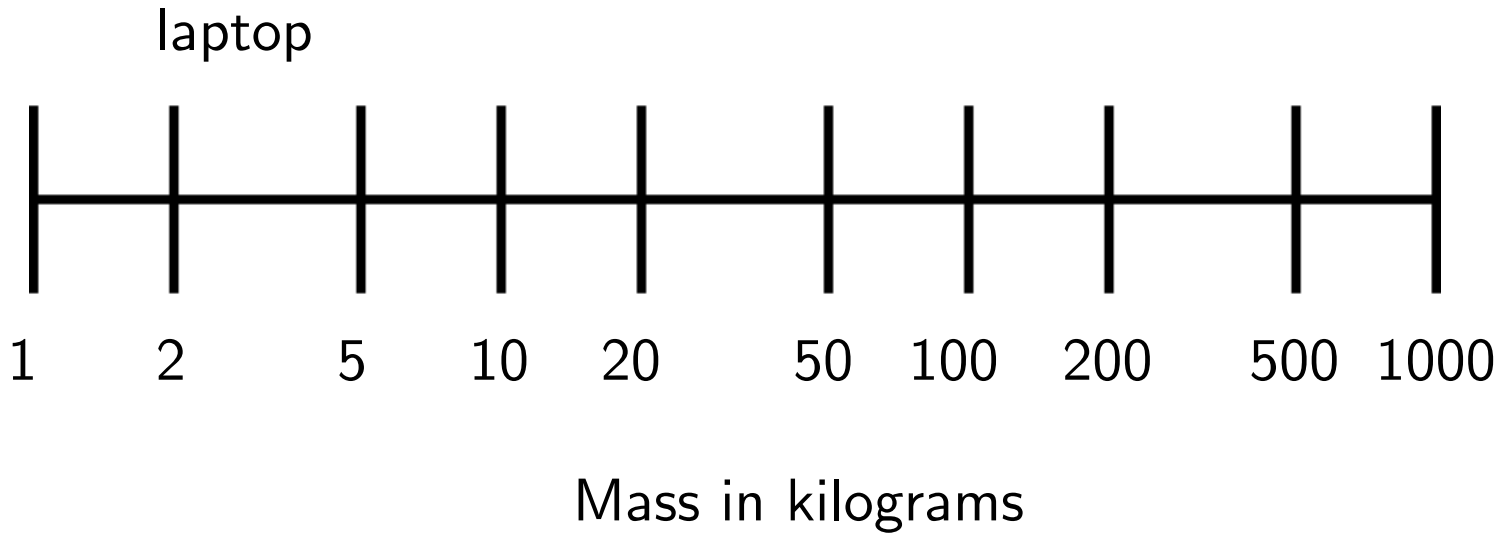
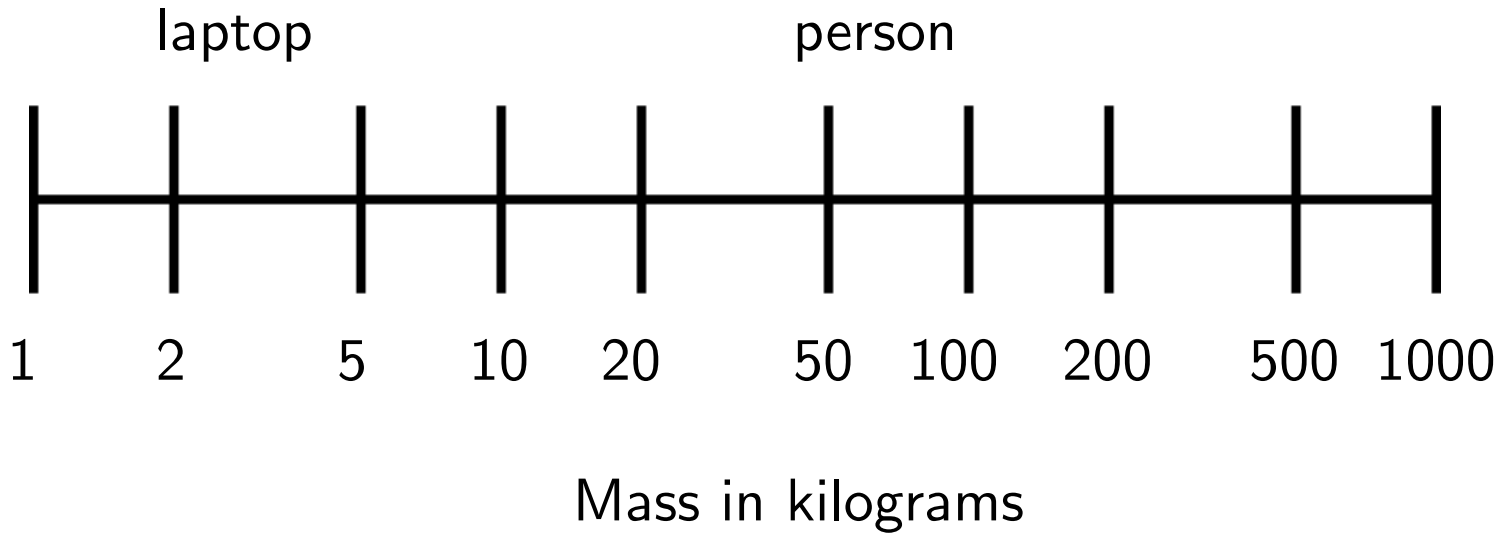
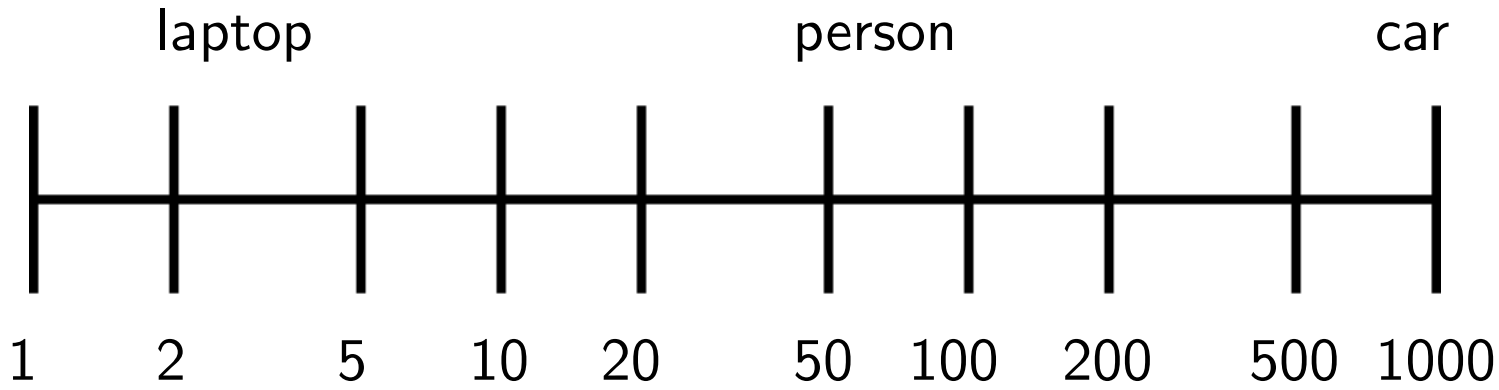


Mass in kilograms


laptop
1
2
5
10
20
50
100
200
500
1000
Mass in kilograms


laptop
person
1
2
5
10
20
50
100
200
500
1000
Mass in kilograms


laptop
person
car
1
2
5
10
20
50
100
200
500
1000
Mass in kilograms

Recap

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1. Logarithmic scales allow large ranges to be shown.

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2. One cycle on a logarithmic scale is an order of magnitude.