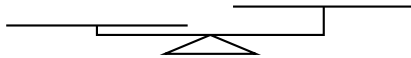


# Wiege Problem

Gegeben sind 12 Kugeln, 11 davon gleich schwer. Mittels einer Balkenwaage und 3 Wiegeversuchen soll bestimmt werden:

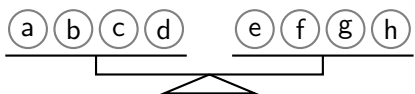
- welche Kugel hat ein abweichendes Gewicht
- ist sie leichter oder schwerer



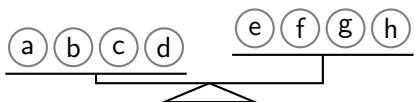
# 1. Wiegung

(?): (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l)

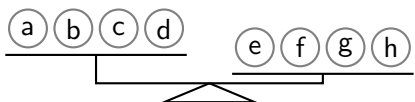
## Resultat

=  ⇒ 2. Wiegung (1)  
Seite 3

(?): (i) (j) (k) (l)  
(N): (a) (b) (c) (d) (e) (f) (g) (h)

<  ⇒ 2. Wiegung (2)  
Seite 4

(S): (a) (b) (c) (d)  
(L): (e) (f) (g) (h)  
(N): (i) (j) (k) (l)

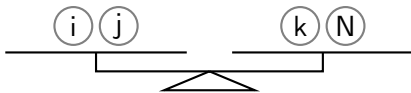
>  ⇒ 2. Wiegung (3)  
Seite 5

(S): (e) (f) (g) (h)  
(L): (a) (b) (c) (d)  
(N): (i) (j) (k) (l)

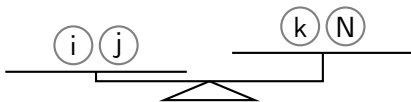
## 2. Wiegung (1)

(?): (i) (j) (k) (l)  
 (N): (a) (b) (c) (d) (e) (f) (g) (h)

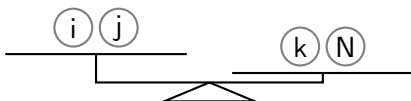
### Resultat

=  ⇒ 3. Wiegung (1)  
 Seite 6

(?): (l)  
 (N): (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)

<  ⇒ 3. Wiegung (2)  
 Seite 7

(S): (i) (j)  
 (L): (k)  
 (N): (a) (b) (c) (d) (e) (f) (g) (h) (l)

>  ⇒ 3. Wiegung (3)  
 Seite 8

(S): (k)  
 (L): (i) (j)  
 (N): (a) (b) (c) (d) (e) (f) (g) (h) (l)

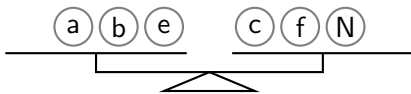
## 2. Wiegung (2)

(S): (a) (b) (c) (d)

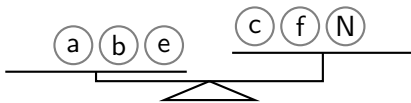
(L): (e) (f) (g) (h)

(N): (i) (j) (k) (l)

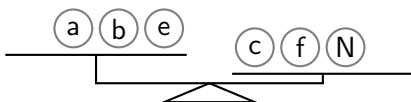
### Resultat

=  ⇒ 3. Wiegung (4)  
Seite 9

(S): (d)  
(L): (g) (h)  
(N): (a) (b) (c) (e) (f) (i) (j) (k) (l)

<  ⇒ 3. Wiegung (5)  
Seite 10

(S): (a) (b)  
(L): (f)  
(N): (c) (d) (e) (g) (h) (i) (j) (k) (l)

>  ⇒ 3. Wiegung (6)  
Seite 11

(S): (c)  
(L): (e)  
(N): (a) (b) (d) (f) (g) (h) (i) (j) (k) (l)

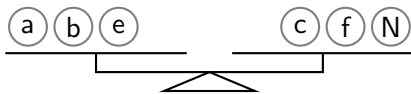
## 2. Wiegung (3)

(S): (e) (f) (g) (h)

(L): (a) (b) (c) (d)

(N): (i) (j) (k) (l)

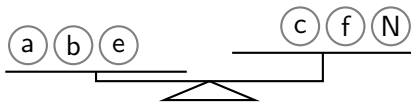
### Resultat

=  ⇒ 3. Wiegung (7)  
Seite 12

(S): (g) (h)

(L): (d)

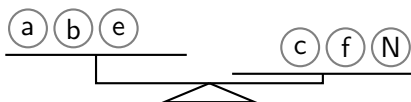
(N): (a) (b) (c) (e) (f) (i) (j) (k) (l)

<  ⇒ 3. Wiegung (8)  
Seite 13

(S): (e)

(L): (c)

(N): (a) (b) (d) (f) (g) (h) (i) (j) (k) (l)

>  ⇒ 3. Wiegung (9)  
Seite 14

(S): (f)

(L): (a) (b)

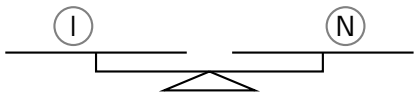
(N): (c) (d) (e) (g) (h) (i) (j) (k) (l)

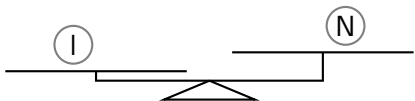
### 3. Wiegung (1)

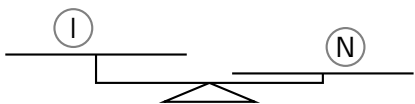
(?):  $\textcircled{I}$

(N):  $\textcircled{a} \textcircled{b} \textcircled{c} \textcircled{d} \textcircled{e} \textcircled{f} \textcircled{g} \textcircled{h} \textcircled{i} \textcircled{j} \textcircled{k}$

### Resultat

=   $\Rightarrow \textcircled{E}$  Error

<   $\Rightarrow \textcircled{I}$  schwerer

>   $\Rightarrow \textcircled{I}$  leichter

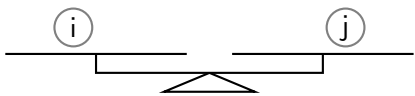
### 3. Wiegung (2)

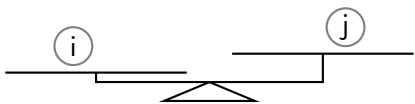
(S): (i) (j)


(L): (k)

(N): (a) (b) (c) (d) (e) (f) (g) (h) (l)

### Resultat

=   $\Rightarrow$  (k) leichter

<   $\Rightarrow$  (i) schwerer

>   $\Rightarrow$  (j) schwerer

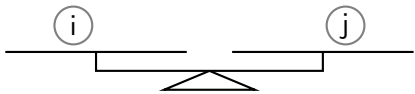
### 3. Wiegung (3)

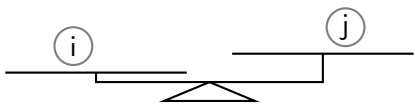
(S): (k)

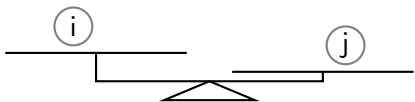
(L): (i) (j)

(N): (a) (b) (c) (d) (e) (f) (g) (h) (l)

### Resultat

=   $\Rightarrow$  (k) schwerer

<   $\Rightarrow$  (j) leichter

>   $\Rightarrow$  (i) leichter

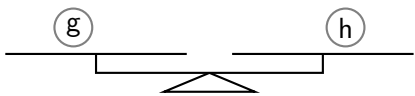
### 3. Wiegung (4)

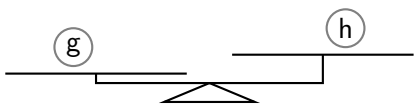
(S): (d)

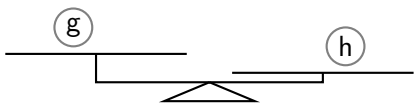
(L): (g) (h)

(N): (a) (b) (c) (e) (f) (i) (j) (k) (l)

### Resultat

=  ⇒ (d) schwerer

<  ⇒ (h) leichter

>  ⇒ (g) leichter

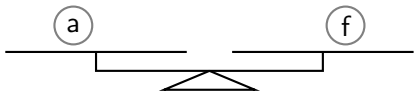
### 3. Wiegung (5)

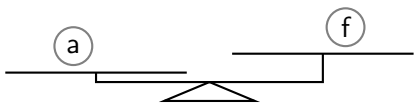
(S): (a) (b)

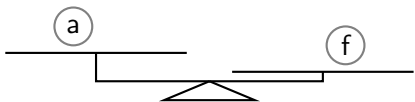
(L): (f)

(N): (c) (d) (e) (g) (h) (i) (j) (k) (l)

### Resultat

=  ⇒ (b) schwerer

<  ⇒ (a) schwerer

>  ⇒ (f) schwerer

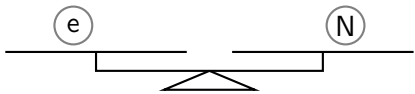
### 3. Wiegung (6)

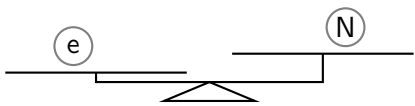
(S): (c)

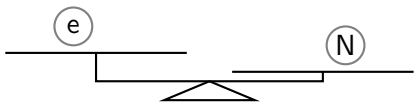
(L): (e)

(N): (a) (b) (d) (f) (g) (h) (i) (j) (k) (l)

### Resultat

=  ⇒ (c) schwerer

<  ⇒ (E) Error

>  ⇒ (e) leichter

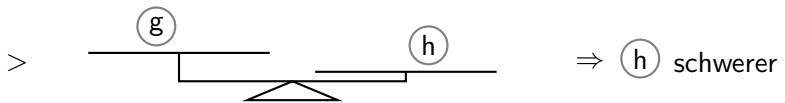
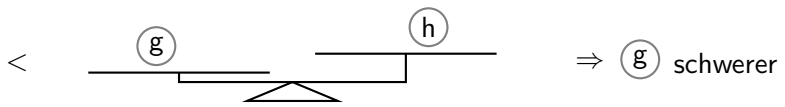
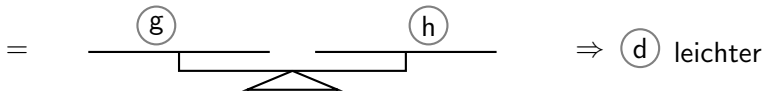
### 3. Wiegung (7)

(S): (g) (h)

(L): (d)

(N): (a) (b) (c) (e) (f) (i) (j) (k) (l)

### Resultat



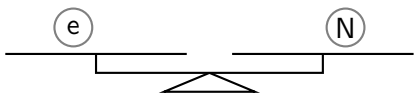
### 3. Wiegung (8)

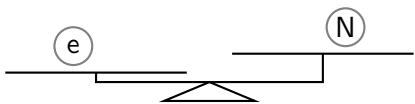
(S): (e)


(L): (c)

(N): (a) (b) (d) (f) (g) (h) (i) (j) (k) (l)

### Resultat

=  ⇒ (c) leichter

<  ⇒ (e) schwerer

>  ⇒ (E) Error

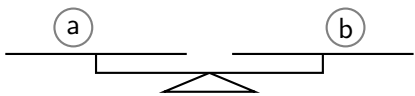
### 3. Wiegung (9)

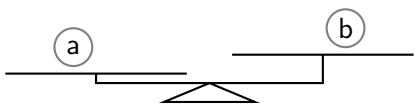
(S): (f)

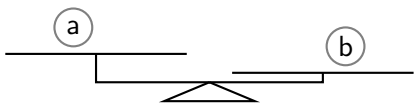
(L): (a) (b)

(N): (c) (d) (e) (g) (h) (i) (j) (k) (l)

### Resultat

=  ⇒ (f) schwerer

<  ⇒ (b) leichter

>  ⇒ (a) leichter