

33529, III, L, c, 109

18/5/80

80 br

Erstes Rechenbuch  
für Volksschulen

von



Lukas Lantar.

Das Rechnen im Zahlenraum 1 bis 20.

Leibach.

Druck und Verlag von Jg. v. Kleinmayr & Fed. Bamberg.

1888.

f ü

# Erstes Rechenbuch

f ü r V o l k s s c h u l e n .

Von

**Lukas Pantar.**

Das Rechnen im Zahlenraum 1 bis 20.



**Laibach.**

Druck und Verlag von Jg. v. Kleinmayr & Fed. Bamberg.

1888.

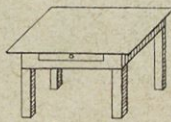
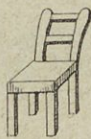
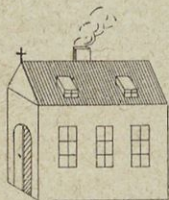
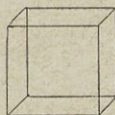
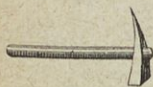
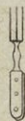
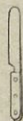
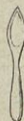
Alle Rechte vorbehalten.

030047552

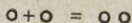
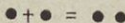
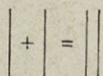
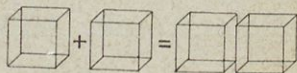
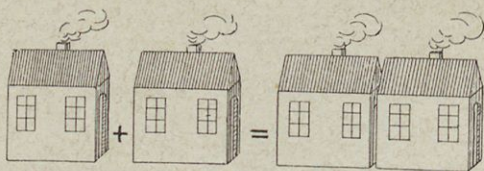
# I. Der Zahlenkreis von 1 bis 3.

Auffassung der Zahlen und der Zeichen +, =

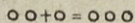
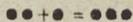
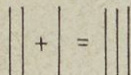
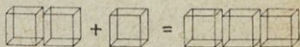
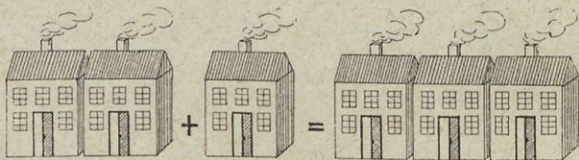
1.



2.



3.



$$\square = | + \neg$$

$$\neg = | + |$$

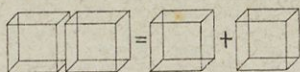
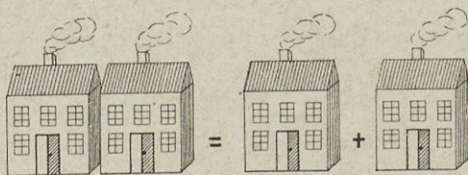
$$\circ \circ \circ = \circ + \circ \circ$$

$$\circ \circ = \circ + \circ$$

$$\bullet \bullet \bullet = \bullet + \bullet \bullet$$

$$\bullet \bullet - \bullet + \bullet$$

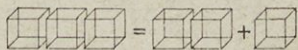
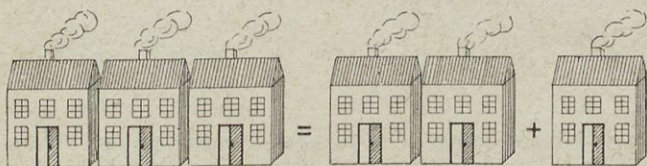
### Zerlegung der Zahlen.



$$\bullet \bullet = \bullet + \bullet$$

$$|| = | + |$$

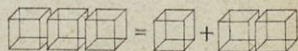
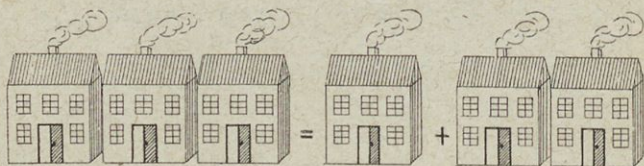
$$\circ \circ = \circ + \circ$$



$$\bullet \bullet \bullet = \bullet \bullet + \bullet$$

$$||| = || + |$$

$$\circ \circ \circ = \circ \circ + \circ$$



$$\bullet \bullet \bullet = \bullet + \bullet \bullet$$

$$||| = | + ||$$

$$\circ \circ \circ = \circ + \circ \circ$$

$$\bullet \circ |$$

$$\bullet \bullet \circ \circ ||$$

$$\bullet \bullet \bullet \circ \circ \circ |||$$

$$\bullet + \bullet = \bullet \bullet$$

$$\bullet \bullet + \bullet = \bullet \bullet \bullet$$

$$\bullet \bullet = \bullet + \bullet$$

$$\bullet \bullet \bullet = \bullet \bullet + \bullet$$

$$\bullet \bullet \bullet = \bullet + \bullet \bullet$$

$$\circ + \circ = \circ \circ$$

$$\circ \circ + \circ = \circ \circ \circ$$

$$\circ \circ = \circ + \circ$$

$$\circ \circ \circ = \circ \circ + \circ$$

$$\circ \circ \circ = \circ + \circ \circ$$

$$| + | = \_ \_$$

$$\_ \_ + | = \_ \_ \_$$

$$\_ \_ = | + |$$

$$\_ \_ \_ = \_ \_ + |$$

$$\_ \_ \_ = | + \_ \_$$



## II. Der Zahlenkreis von 1 bis 5.

Auffassung der Zahlen und Ziffern an Zahlbildern.

$$\bullet\bullet\bullet + \bullet = \bullet\bullet\bullet\bullet \quad ||| + | = ||||$$

$$\circ\circ\circ + \circ = \circ\circ\circ\circ$$

$$\bullet\bullet\bullet \bullet \quad \circ\circ\circ \circ \quad \text{4}$$


---

$$\bullet\bullet\bullet\bullet + \bullet = \bullet\bullet\bullet\bullet\bullet \quad |||| + | = |||||$$

$$\circ\circ\circ\circ + \circ = \circ\circ\circ\circ\circ$$

$$\bullet\bullet\bullet \bullet\bullet \quad \circ\circ\circ \circ\circ \quad \text{5}$$


---

$$\bullet \mid \circ \quad \bullet\bullet \parallel \circ\circ \quad \bullet\bullet\bullet \parallel \circ\circ\circ$$

$$\bullet\bullet\bullet \bullet \quad ||| | \quad \circ\circ\circ \circ$$

$$\bullet\bullet\bullet \bullet\bullet \quad ||| \parallel \quad \circ\circ\circ \circ\circ$$


---

$$\text{1} \quad \text{2} \quad \text{3} \quad \text{4} \quad \text{5}$$

$$\text{1} \quad \text{2} \quad \text{3} \quad \text{4} \quad \text{5}$$


---

3, 5, 1, 4, 2, 1, 5, 4, 3, 1, 2, 5, 4, 1,  
 3, 2, 5, 2, 4, 5, 3, 4, 2, 3, 5, 1, 3, 4.

$$\bullet + \bullet = \quad | + | = \quad \circ + \circ =$$

$$\bullet\bullet + \bullet = \quad || + | = \quad \circ\circ + \circ =$$

$$\bullet\bullet\bullet + \bullet = \quad ||| + | = \quad \circ\circ\circ + \circ =$$

$$\bullet\bullet\bullet\bullet + \bullet = \quad |||| + | = \quad \circ\circ\circ\circ + \circ =$$

$$1 + 1 = \quad 2 + 1 = \quad 3 + 1 = \quad 4 + 1 =$$

$$3 + 1 = \quad 1 + 1 = \quad 4 + 1 = \quad 2 + 1 =$$

Kupfermünzen (siehe praktischen Theil).

### III. Der Zahlenkreis von 1 bis 10.

Auffassung der Zahlen und Ziffern. — Paar.

$$\bullet\bullet\bullet\bullet\bullet + \bullet = \bullet\bullet\bullet\bullet\bullet\bullet \quad \begin{array}{|c|} \hline \text{E} \\ \hline \end{array} 6$$

$$\bullet\bullet\bullet\bullet\bullet\bullet + \bullet = \bullet\bullet\bullet\bullet\bullet\bullet\bullet \quad \begin{array}{|c|} \hline \text{L} \\ \hline \end{array} 7$$

$$\bullet\bullet\bullet\bullet\bullet\bullet\bullet + \bullet = \bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet \quad \begin{array}{|c|} \hline \text{X} \\ \hline \end{array} 8$$

$$\bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet + \bullet = \bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet \quad \begin{array}{|c|} \hline \text{I} \\ \hline \end{array} 9$$

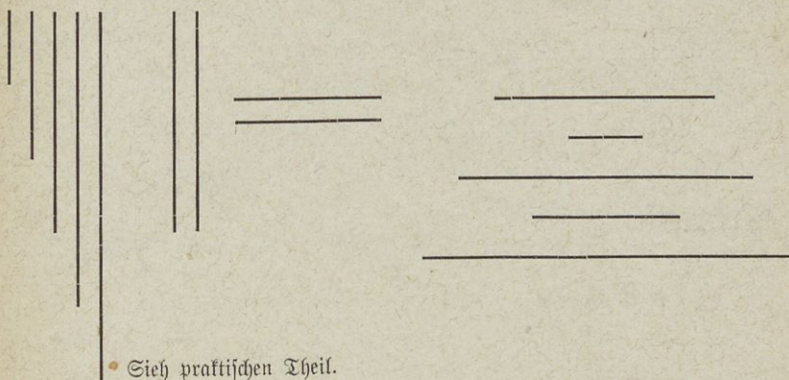
$$\bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet + \bullet = \bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet \quad 10$$

$$5 + 1 = \quad 6 + 1 = \quad 7 + 1 = \quad 8 + 1 = \quad 9 + 1 =$$

7, 4, 8, 2, 6, 1, 9, 5, 3, 10, 2, 9, 5, 7,  
10, 4, 3, 6, 8, 3, 1, 10, 8, 4, 9, 7, 2, 6.

$3 + 1 =$	$7 + 1 =$	$5 + 1 =$
$1 + 1 =$	$9 + 1 =$	$2 + 1 =$
$6 + 1 =$	$8 + 1 =$	$4 + 1 =$

Vergleichen der Strecken bezüglich ihrer Längen.



• Sieh praktischen Theil.

### Zusammenzählen.

Zuzählen der Zahlen 1, 2, 3.

Zuzählen der Zahl 1.

$1 + 1 =$	$3 + 1 =$	$5 + 1 =$	$7 + 1 =$	$9 + 1 =$
$2 + 1 =$	$4 + 1 =$	$6 + 1 =$	$8 + 1 =$	$3 + 1 =$
$3 + 1 =$	$8 + 1 =$	$1 + 1 =$	$4 + 1 =$	$5 + 1 =$
$2 + 1 =$	$6 + 1 =$	$9 + 1 =$	$8 + 1 =$	$7 + 1 =$

Zuzählen der Zahl 2.

$$\begin{array}{|l|l|l|l|} \hline 1 + 2 = & 3 + 2 = & 5 + 2 = & 7 + 2 = \\ 2 + 2 = & 4 + 2 = & 6 + 2 = & 8 + 2 = \\ \hline \end{array}$$

$$\begin{array}{|l|l|l|l|} \hline 4 + 2 = & 3 + 2 = & 2 + 2 = & 5 + 2 = \\ 7 + 2 = & 8 + 2 = & 6 + 2 = & 1 + 2 = \\ \hline \end{array}$$

Zuzählen der Zahl 3.

$$\begin{array}{|l|l|l|l|} \hline 1 + 3 = & 3 + 3 = & 5 + 3 = & 7 + 3 = \\ 2 + 3 = & 4 + 3 = & 6 + 3 = & 2 + 3 = \\ \hline \end{array}$$

$$\begin{array}{|l|l|l|l|} \hline 6 + 3 = & 4 + 3 = & 7 + 3 = & 5 + 3 = \\ 2 + 3 = & 1 + 3 = & 3 + 3 = & 1 + 3 = \\ \hline \end{array}$$

Zuzählen der Zahlen 1, 2, 3 zu derselben Zahl.

$$\begin{array}{|l|l|l|l|l|} \hline 1 + 1 = & 2 + 1 = & 3 + 1 = & 4 + 1 = & 5 + 1 = \\ 1 + 2 = & 2 + 2 = & 3 + 2 = & 4 + 2 = & 5 + 2 = \\ 1 + 3 = & 2 + 3 = & 3 + 3 = & 4 + 3 = & 5 + 3 = \\ \hline \end{array}$$

$$\begin{array}{|l|l|l|} \hline 6 + 1 = & 7 + 1 = & 8 + 1 = \\ 6 + 2 = & 7 + 2 = & 8 + 2 = \\ 6 + 3 = & 7 + 3 = & 9 + 1 = \\ \hline \end{array}$$

Messen der Strecken durch *dm*. Sieh praktischen Theil. — Wiederholung der Zuzählübungen der Zahlen 1, 2, 3. — Angewandtes Rechnen. — Verlängerungen um 1 *dm*, 2 *dm*, 3 *dm*. Sieh praktischen Theil.

Zuzählen der Zahl 4.

$$1 + 4 = \quad 2 + 4 = \quad 3 + 4 = \quad 4 + 4 = \quad 5 + 4 = \quad 6 + 4 =$$

$$4 + 4 = \quad 1 + 4 = \quad 5 + 4 = \quad 3 + 4 = \quad 6 + 4 = \quad 2 + 4 =$$

Angewandtes Rechnen. — Verlängerungen um 4 *dm*. — Messen mit *m*. Sieh praktischen Theil.

Zuzählen der Zahl 5.

$$1 + 5 = \quad 2 + 5 = \quad 3 + 5 = \quad 4 + 5 = \quad 5 + 5 =$$

$$4 + 5 = \quad 1 + 5 = \quad 5 + 5 = \quad 3 + 5 = \quad 2 + 5 =$$

Angewandtes Rechnen. — Verlängerungen um 5 dm, 1 m, 2 m, 3 m, 4 m, 5 m.

Zuzählen der Zahlen 6, 7, 8, 9.

$$1 + 6 = \quad 2 + 6 = \quad 3 + 6 = \quad 4 + 6 = \quad 1 + 7 =$$

$$2 + 7 = \quad 3 + 7 = \quad 1 + 8 = \quad 2 + 8 = \quad 1 + 9 =$$

$$2 + 7 = \quad 3 + 6 = \quad 1 + 9 = \quad 4 + 6 = \quad 2 + 8 =$$

$$2 + 6 = \quad 1 + 7 = \quad 3 + 7 = \quad 1 + 8 = \quad 1 + 6 =$$

Angewandtes Rechnen. — Maßstab mit dm; 1 m = 10 dm. — cm-Maß. —  
1 dm = 10 cm.

$$1 + 1 = \quad 2 + 2 = \quad 3 + 3 = \quad 4 + 4 = \quad 5 + 5 =$$

$$4 + 4 = \quad 1 + 1 = \quad 5 + 5 = \quad 3 + 3 = \quad 2 + 2 =$$

Vertauschung der Summanden.

$$2 + 1 = \quad 3 + 2 = \quad 4 + 2 = \quad 5 + 2 = \quad 6 + 2 =$$

$$1 + 2 = \quad 2 + 3 = \quad 2 + 4 = \quad 2 + 5 = \quad 2 + 6 =$$

$$7 + 2 = \quad 8 + 2 = \quad 3 + 1 =$$

$$2 + 7 = \quad 2 + 8 = \quad 1 + 3 =$$

$$4 + 3 = \quad 5 + 3 = \quad 6 + 3 = \quad 7 + 3 = \quad 4 + 1 =$$

$$3 + 4 = \quad 3 + 5 = \quad 3 + 6 = \quad 3 + 7 = \quad 1 + 4 =$$

$$5 + 4 = \quad 6 + 4 = \quad 5 + 1 = \quad 6 + 1 = \quad 7 + 1 =$$

$$4 + 5 = \quad 4 + 6 = \quad 1 + 5 = \quad 1 + 6 = \quad 1 + 7 =$$

$$8 + 1 = \quad 9 + 1 =$$

$$1 + 8 = \quad 1 + 9 =$$

### Vermischte Übungen.

$5 + 3 =$	$2 + 7 =$	$3 + 2 =$	$6 + 3 =$	$1 + 8 =$
$5 + 5 =$	$4 + 2 =$	$1 + 9 =$	$1 + 5 =$	$3 + 4 =$
$2 + 8 =$	$6 + 4 =$	$6 + 1 =$	$5 + 4 =$	$3 + 7 =$
$2 + 5 =$	$4 + 6 =$	$2 + 4 =$	$8 + 1 =$	$2 + 2 =$
$9 + 1 =$	$7 + 2 =$	$6 + 2 =$	$8 + 2 =$	$1 + 6 =$
$4 + 5 =$	$1 + 1 =$	$7 + 1 =$	$3 + 3 =$	$2 + 6 =$
$4 + 4 =$	$3 + 6 =$	$4 + 1 =$	$5 + 1 =$	$3 + 5 =$
$1 + 4 =$	$4 + 3 =$	$7 + 3 =$	$3 + 1 =$	$1 + 3 =$
$2 + 3 =$	$5 + 2 =$	$2 + 1 =$	$1 + 2 =$	$1 + 7 =$

Angewandtes Rechnen u. s. f. (siehe praktischen Theil). — Rechnen mit benannten Zahlen (siehe praktischen Theil).

### Abziehen.

#### Abziehen der Zahlen 1, 2, 3.

##### Abziehen der Zahl 1.

$10 - 1 =$	$9 - 1 =$	$8 - 1 =$	$7 - 1 =$	$6 - 1 =$
$5 - 1 =$	$4 - 1 =$	$3 - 1 =$	$2 - 1 =$	$1 - 1 =$
$7 - 1 =$	$2 - 1 =$	$10 - 1 =$	$1 - 1 =$	$5 - 1 =$
$9 - 1 =$	$4 - 1 =$	$8 - 1 =$	$6 - 1 =$	$3 - 1 =$

##### Abziehen der Zahl 2.

$10 - 2 =$	$9 - 2 =$	$8 - 2 =$	$7 - 2 =$	$6 - 2 =$
$5 - 2 =$	$4 - 2 =$	$3 - 2 =$	$2 - 2 =$	$10 - 1 =$
$6 - 2 =$	$2 - 2 =$	$9 - 2 =$	$5 - 2 =$	$10 - 2 =$
$3 - 2 =$	$8 - 2 =$	$4 - 2 =$	$7 - 2 =$	$10 - 1 =$

##### Abziehen der Zahl 3.

$10 - 3 =$	$9 - 3 =$	$8 - 3 =$	$7 - 3 =$	$6 - 3 =$
$5 - 3 =$	$4 - 3 =$	$3 - 3 =$	$10 - 2 =$	$10 - 1 =$

$$\begin{array}{cccccc}
 4 - 3 = & 7 - 3 = & 10 - 3 = & 3 - 3 = & 8 - 3 = \\
 5 - 3 = & 9 - 3 = & 6 - 3 = & 10 - 2 = & 10 - 1 =
 \end{array}$$

Abziehen der Zahlen 1, 2, 3 von derselben Zahl.

$$\begin{array}{cc|cc|cc|cc|cc}
 10 - 1 = & 9 - 1 = & 8 - 1 = & 7 - 1 = & 6 - 1 = \\
 10 - 2 = & 9 - 2 = & 8 - 2 = & 7 - 2 = & 6 - 2 = \\
 10 - 3 = & 9 - 3 = & 8 - 3 = & 7 - 3 = & 6 - 3 = \\
 \\ 
 5 - 1 = & 4 - 1 = & 3 - 1 = & 2 - 1 = & 9 + 1 = \\
 5 - 2 = & 4 - 2 = & 3 - 2 = & 2 - 2 = & 8 + 2 = \\
 5 - 3 = & 4 - 3 = & 3 - 3 = & 1 - 1 = & 7 + 3 =
 \end{array}$$

Das Messen (der Flüssigkeiten) u. s. w. durch *dl.* — Angewandtes Rechnen. — Erstes Normalbeispiel. — Kürzen der Strecken um 1, 2, 3 *dm*, der Schnüre um 1, 2, 3 *m*. Sieh praktischen Theil.

Abziehen der Zahl 4.

$$\begin{array}{cc|cc|cc|cc|cc}
 10 - 1 = & 9 - 1 = & 8 - 1 = & 7 - 1 = & 6 - 1 = \\
 10 - 2 = & 9 - 2 = & 8 - 2 = & 7 - 2 = & 6 - 2 = \\
 10 - 3 = & 9 - 3 = & 8 - 3 = & 7 - 3 = & 6 - 3 = \\
 10 - 4 = & 9 - 4 = & 8 - 4 = & 7 - 4 = & 6 - 4 = \\
 \\ 
 & 5 - 1 = & 4 - 1 = \\
 & 5 - 2 = & 4 - 2 = \\
 & 5 - 3 = & 4 - 3 = \\
 & 5 - 4 = & 4 - 4 =
 \end{array}$$

$$\begin{array}{cccccc}
 10 - 4 = & 9 - 4 = & 8 - 4 = & 7 - 4 = & 6 - 4 = \\
 & 5 - 4 = & 4 - 4 = & & \\
 \\ 
 5 - 4 = & 7 - 4 = & 4 - 4 = & 10 - 4 = & 9 - 4 = \\
 & 6 - 4 = & 8 - 4 = & &
 \end{array}$$

Angewandtes Rechnen. — Erstes Normalbeispiel und ähnliche Aufgaben. — Kürzen der Schnüre und Strecken um 4 *dm* (4 *m*). — Messen durch *l.*

Abziehen der Zahl 5.

10 — 1 ==	9 — 1 ==	8 — 1 ==	7 — 1 ==	6 — 1 ==	5 — 1 ==
10 — 2 ==	9 — 2 ==	8 — 2 ==	7 — 2 ==	6 — 2 ==	5 — 2 ==
10 — 3 ==	9 — 3 ==	8 — 3 ==	7 — 3 ==	6 — 3 ==	5 — 3 ==
10 — 4 ==	9 — 4 ==	8 — 4 ==	7 — 4 ==	6 — 4 ==	5 — 4 ==
10 — 5 ==	9 — 5 ==	8 — 5 ==	7 — 5 ==	6 — 5 ==	5 — 5 ==

10 — 5 ==	9 — 5 ==	8 — 5 ==	7 — 5 ==	6 — 5 ==
		5 — 5 ==		

6 — 5 ==	10 — 5 ==	7 — 5 ==	9 — 5 ==	5 — 5 ==
		8 — 5 ==		

9 — 4 ==	9 — 5 ==	10 — 3 ==	6 — 2 ==	10 — 1 ==
7 — 5 ==	8 — 4 ==	7 — 2 ==	8 — 3 ==	9 — 2 ==
6 — 4 ==	6 — 5 ==	8 — 2 ==	5 — 2 ==	7 — 3 ==
10 — 5 ==	10 — 4 ==	6 — 3 ==	7 — 3 ==	9 — 1 ==
4 — 4 ==	8 — 5 ==	9 — 3 ==	4 — 2 ==	8 — 5 ==

Angewandtes Rechnen. — Erstes Normalbeispiel mit Berücksichtigung der Zahl 5. — Kürzen der Strecken (Schnüre) um 5 dm (5 m).

Abziehen der Zahlen 6, 7, 8, 9.

10 — 6 ==	10 — 7 ==	10 — 8 ==	10 — 9 ==	} Diese Übungen auch in hori- zontaler Rich- tung.
9 — 6 ==	9 — 7 ==	9 — 8 ==	9 — 9 ==	
8 — 6 ==	8 — 7 ==	8 — 8 ==	10 — 10 ==	
7 — 6 ==	7 — 7 ==	10 — 2 ==	10 — 4 ==	
6 — 6 ==	10 — 1 ==	10 — 3 ==	10 — 5 ==	

8 — 7 ==	6 — 6 ==	9 — 8 ==	10 — 6 ==	8 — 8 ==
7 — 6 ==	10 — 7 ==	8 — 6 ==	9 — 9 ==	9 — 6 ==
10 — 10 ==	9 — 7 ==	10 — 8 ==	7 — 7 ==	10 — 9 ==

Angewandtes Rechnen. — Aufgaben nach dem ersten Normalbeispiele; zweites Normalbeispiel. — cl-Maß. — 1 l = 10 dl, 1 dl = 10 cl.



Abziehen im Zusammenhang mit Zuzählen.

$1 + 1 =$	$1 + 2 =$	$2 + 3 =$	$4 + 4 =$	$2 + 6 =$
$2 - 1 =$	$3 - 2 =$	$5 - 3 =$	$8 - 4 =$	$8 - 6 =$
$2 + 1 =$	$2 + 2 =$	$3 + 3 =$	$5 + 4 =$	$3 + 6 =$
$3 - 1 =$	$4 - 2 =$	$6 - 3 =$	$9 - 4 =$	$9 - 6 =$
$3 + 1 =$	$3 + 2 =$	$4 + 3 =$	$6 + 4 =$	$4 + 6 =$
$4 - 1 =$	$5 - 2 =$	$7 - 3 =$	$10 - 4 =$	$10 - 6 =$
$4 + 1 =$	$4 + 2 =$	$5 + 3 =$	$1 + 5 =$	$1 + 7 =$
$5 - 1 =$	$6 - 2 =$	$8 - 3 =$	$6 - 5 =$	$8 - 7 =$
$5 + 1 =$	$5 + 2 =$	$6 + 3 =$	$2 + 5 =$	$2 + 7 =$
$6 - 1 =$	$7 - 2 =$	$9 - 3 =$	$7 - 5 =$	$9 - 7 =$
$6 + 1 =$	$6 + 2 =$	$7 + 3 =$	$3 + 5 =$	$3 + 7 =$
$7 - 1 =$	$8 - 2 =$	$10 - 3 =$	$8 - 5 =$	$10 - 7 =$
$7 + 1 =$	$7 + 2 =$	$1 + 4 =$	$4 + 5 =$	$1 + 8 =$
$8 - 1 =$	$9 - 2 =$	$5 - 4 =$	$9 - 5 =$	$9 - 8 =$
$8 + 1 =$	$8 + 2 =$	$2 + 4 =$	$5 + 5 =$	$2 + 8 =$
$9 - 1 =$	$10 - 2 =$	$6 - 4 =$	$10 - 5 =$	$10 - 8 =$
$9 + 1 =$	$1 + 3 =$	$3 + 4 =$	$1 + 6 =$	$1 + 9 =$
$10 - 1 =$	$4 - 3 =$	$7 - 4 =$	$7 - 6 =$	$10 - 9 =$

Angewandtes Rechnen u. s. w. s. d. praktischen Theil.

Vermischte Übungen.

$8 - 3 =$	$9 - 7 =$	$5 - 2 =$	$9 - 3 =$	$9 - 8 =$
$10 - 5 =$	$6 - 2 =$	$10 - 3 =$	$6 - 5 =$	$10 - 8 =$
$10 - 4 =$	$7 - 1 =$	$9 - 4 =$	$10 - 7 =$	$7 - 5 =$
$10 - 6 =$	$7 - 4 =$	$9 - 1 =$	$4 - 2 =$	$10 - 9 =$
$9 - 2 =$	$8 - 2 =$	$10 - 2 =$	$7 - 6 =$	$9 - 5 =$
$2 - 1 =$	$8 - 3 =$	$6 - 3 =$	$8 - 5 =$	$8 - 4 =$
$9 - 6 =$	$5 - 1 =$	$6 - 1 =$	$8 - 6 =$	$5 - 4 =$
$7 - 3 =$	$4 - 3 =$	$4 - 3 =$	$5 - 5 =$	$3 - 1 =$
$3 - 2 =$	$6 - 1 =$	$10 - 1 =$	$7 - 3 =$	$8 - 7 =$

Angewandtes Rechnen. — Beispiele nach dem ersten und zweiten Normalbeispiele; drittes Normalbeispiel und ähnliche Aufgaben.

### Zerlegung der Zahlen.

$6 = 5 +$	$7 = 6 +$	$8 = 7 +$	$9 = 8 +$	$10 = 9 +$
$6 = 4 +$	$7 = 5 +$	$8 = 6 +$	$9 = 7 +$	$10 = 8 +$
$6 = 3 +$	$7 = 4 +$	$8 = 5 +$	$9 = 6 +$	$10 = 7 +$
$8 = 5 +$	$10 = 2 +$	$4 = 2 +$	$6 = 3 +$	$4 = 3 +$
$9 = 2 +$	$10 = 6 +$	$10 = 1 +$	$8 = 2 +$	$4 = 1 +$
$5 = 3 +$	$7 = 6 +$	$9 = 7 +$	$8 = 4 +$	$5 = 2 +$
$9 = 6 +$	$9 = 5 +$	$8 = 6 +$	$9 = 3 +$	$3 = 2 +$
$9 = 1 +$	$10 = 3 +$	$10 = 8 +$	$5 = 4 +$	$3 = 1 +$
$10 = 4 +$	$7 = 2 +$	$7 = 1 +$	$6 = 5 +$	$6 = 2 +$
$6 = 5 +$	$10 = 4 +$	$9 = 4 +$	$8 = 3 +$	$10 = 9 +$
$10 = 7 +$	$7 = 3 +$	$2 = 1 +$	$5 = 1 +$	$7 = 5 +$
$6 = 1 +$	$9 = 8 +$	$8 = 7 +$	$7 = 4 +$	$8 = 1 +$

### Ergänzung der Zahlen.

$5 + = 6$	$4 + = 6$	$3 + = 6$
$6 + = 7$	$5 + = 7$	$4 + = 7$
$7 + = 8$	$6 + = 8$	$5 + = 8$
$8 + = 9$	$7 + = 9$	$6 + = 9$
$9 + = 10$	$8 + = 10$	$7 + = 10$

$5 + = 8$	$2 + = 9$	$3 + = 5$	$6 + = 9$	$3 + = 7$
$4 + = 6$	$6 + = 10$	$1 + = 9$	$7 + = 10$	$2 + = 10$
$5 + = 9$	$1 + = 6$	$6 + = 7$	$3 + = 10$	$5 + = 10$
$8 + = 9$	$3 + = 6$	$1 + = 7$	$7 + = 8$	$1 + = 2$
$4 + = 5$	$3 + = 8$	$5 + = 6$	$3 + = 9$	$4 + = 9$
$1 + = 5$	$4 + = 8$	$4 + = 7$	$1 + = 4$	$8 + = 10$
$2 + = 5$	$4 + = 10$	$3 + = 4$	$2 + = 8$	$5 + = 7$
$9 + = 10$	$7 + = 9$	$1 + = 3$	$6 + = 8$	$2 + = 3$
$1 + = 8$	$2 + = 5$	$1 + = 9$	$2 + = 6$	$2 + = 4$

Angewandtes Rechnen (siehe praktischen Theil.)

### Bermischte Übungen.

$5 + 3 =$	$6 - 2 =$	$4 + 4 =$	$9 - 4 =$	$6 + 2 =$
$7 + 3 =$	$8 - 6 =$	$1 + 1 =$	$7 - 3 =$	$2 + 5 =$
$4 + 6 =$	$5 - 3 =$	$2 + 2 =$	$6 - 5 =$	$3 + 3 =$
$5 + 4 =$	$7 - 2 =$	$6 + 1 =$	$4 - 2 =$	$8 + 2 =$
$1 + 9 =$	$8 - 7 =$	$7 + 1 =$	$10 - 7 =$	$5 + 5 =$
$4 + 5 =$	$6 - 3 =$	$1 + 2 =$	$3 - 1 =$	$6 + 4 =$
$8 + 1 =$	$10 - 5 =$	$4 + 2 =$	$8 - 5 =$	$9 + 1 =$
$1 + 6 =$	$3 - 2 =$	$5 + 2 =$	$10 - 2 =$	$1 + 3 =$
$3 + 2 =$	$10 - 4 =$	$2 + 6 =$	$9 - 8 =$	$8 + 2 =$
$2 + 4 =$	$5 - 4 =$	$1 + 8 =$	$9 - 2 =$	$3 + 7 =$
$3 + 5 =$	$7 - 5 =$	$3 + 4 =$	$8 - 4 =$	$1 + 5 =$
$7 + 2 =$	$7 - 6 =$	$6 + 3 =$	$10 - 9 =$	$1 + 7 =$
$1 + 4 =$	$9 - 3 =$	$2 + 3 =$	$6 - 1 =$	$4 + 3 =$
$2 + 7 =$	$10 - 3 =$	$3 + 6 =$	$7 - 4 =$	$2 + 8 =$
$3 + 1 =$	$9 - 5 =$	$4 + 1 =$	$9 - 7 =$	$2 + 3 =$
$5 + 5 =$	$4 - 3 =$	$5 + 3 =$	$4 - 1 =$	$1 + 1 =$
$3 + 6 =$	$8 - 3 =$	$4 + 2 =$	$5 - 2 =$	$3 + 5 =$
$4 + 4 =$	$6 - 4 =$	$9 + 1 =$	$8 - 2 =$	$4 + 1 =$
$7 - 1 =$	$10 - 8 =$	$3 + 3 =$	$9 - 6 =$	$10 - 6 =$

Angewandtes Rechnen (siehe praktischen Theil. — Viertes Normalbeispiel.)

## IV. Der Zahlenkreis von 10 bis 20.

### Auffassung der Zahlen.

$10 + 1 =$	$10 + 2 =$	$10 + 3 =$	$10 + 4 =$	$10 + 5 =$
$10 + 6 =$	$10 + 7 =$	$10 + 8 =$	$10 + 9 =$	$10 + 10 =$
$10 + 3 =$	$10 + 8 =$	$10 + 5 =$	$10 + 9 =$	$10 + 6 =$
$10 + 4 =$	$10 + 1 =$	$10 + 2 =$	$10 + 7 =$	$10 + 10 =$

Zähle von: 10 bis 20, 1 bis 20, 10 bis 15, 13 bis 19, 7 bis 16 u. s. f. (Siehe praktischen Theil.)

$$5 + 10 = \quad 3 + 10 = \quad 9 + 10 = \quad 6 + 10 = \quad 2 + 10 =$$

$$8 + 10 = \quad 4 + 10 = \quad 7 + 10 = \quad 1 + 10 = \quad 10 + 10 =$$

$$11 = 10 + \cdot \quad 12 = 10 + \cdot \quad 13 = 10 + \cdot \quad 14 = 10 + \cdot$$

$$15 = 10 + \cdot \quad 16 = 10 + \cdot \quad 17 = 10 + \cdot \quad 18 = 10 + \cdot$$

$$19 = 10 + \cdot \quad 20 = 10 + \cdot$$

$$14 = 10 + \cdot \quad 17 = 10 + \cdot \quad 11 = 10 + \cdot \quad 15 = 10 + \cdot$$

$$12 = 10 + \cdot \quad 19 = 10 + \cdot \quad 13 = 10 + \cdot \quad 20 = 10 + \cdot$$

$$16 = 10 + \cdot \quad 18 = 10 + \cdot$$

Rechnen mit benannten Zahlen s. d. praktischen Theil.

$$13 \quad 15 \quad 12 \quad 17 \quad 20 \quad 19 \quad 16 \quad 18 \quad 14 \quad 11$$

$$15 - 5 = \quad 19 - 9 = \quad 12 - 2 = \quad 17 - 7 = \quad 14 - 4 =$$

$$18 - 8 = \quad 11 - 1 = \quad 16 - 6 = \quad 13 - 3 = \quad 20 - 10 =$$

## Zusammenzählen.

Zuzählen mit Übergang über 10.

$$8 + \cdot = 10 \quad 6 + \cdot = 10 \quad 9 + \cdot = 10 \quad 7 + \cdot = 10$$

$$4 + \cdot = 10 \quad 5 + \cdot = 10 \quad 2 + \cdot = 10 \quad 1 + \cdot = 10$$

$$3 + \cdot = 10$$

$9 + 1 + 1 =$	$8 + 2 + 2 =$	$7 + 3 + 4 =$	$5 + 5 + 2 =$
$9 + 1 + 2 =$	$8 + 2 + 3 =$	$7 + 3 + 5 =$	$5 + 5 + 3 =$
$9 + 1 + 3 =$	$8 + 2 + 4 =$	$7 + 3 + 6 =$	$5 + 5 + 4 =$
$9 + 1 + 4 =$	$8 + 2 + 5 =$	$6 + 4 + 1 =$	$4 + 6 + 1 =$
$9 + 1 + 5 =$	$8 + 2 + 6 =$	$6 + 4 + 2 =$	$4 + 6 + 2 =$
$9 + 1 + 6 =$	$8 + 2 + 7 =$	$6 + 4 + 3 =$	$4 + 6 + 3 =$
$9 + 1 + 7 =$	$7 + 3 + 1 =$	$6 + 4 + 4 =$	$3 + 7 + 1 =$
$9 + 1 + 8 =$	$7 + 3 + 2 =$	$6 + 4 + 5 =$	$3 + 7 + 2 =$
$8 + 2 + 1 =$	$7 + 3 + 3 =$	$5 + 5 + 1 =$	$2 + 8 + 1 =$

$9 + 2 =$	$9 + 6 =$	$9 + 3 =$	$9 + 7 =$
$9 + 3 =$	$9 + 7 =$	$9 + 6 =$	$9 + 5 =$
$9 + 4 =$	$9 + 8 =$	$9 + 4 =$	$9 + 9 =$
$9 + 5 =$	$9 + 9 =$	$9 + 8 =$	$9 + 2 =$

$8 + 3 =$	$8 + 7 =$	$8 + 9 =$	$8 + 4 =$
$8 + 4 =$	$8 + 8 =$	$8 + 3 =$	$8 + 7 =$
$8 + 5 =$	$8 + 9 =$	$8 + 6 =$	$9 + 3 =$
$8 + 6 =$	$8 + 5 =$	$8 + 8 =$	$9 + 5 =$

$7 + 4 =$	$7 + 7 =$	$7 + 8 =$	$7 + 4 =$
$7 + 5 =$	$7 + 8 =$	$7 + 5 =$	$7 + 9 =$
$7 + 6 =$	$7 + 9 =$	$7 + 7 =$	$7 + 6 =$

$9 + 9 =$	$7 + 5 =$	$9 + 7 =$	$9 + 9 =$
$8 + 5 =$	$9 + 6 =$	$8 + 6 =$	$8 + 4 =$
$7 + 8 =$	$8 + 3 =$	$9 + 4 =$	$7 + 9 =$
$9 + 3 =$	$7 + 7 =$	$9 + 5 =$	$8 + 7 =$
$8 + 9 =$	$9 + 8 =$	$8 + 8 =$	$7 + 6 =$

$6 + 5 =$	$6 + 9 =$	$5 + 9 =$	$3 + 8 =$
$6 + 6 =$	$5 + 6 =$	$4 + 7 =$	$3 + 9 =$
$6 + 7 =$	$5 + 7 =$	$4 + 8 =$	$2 + 9 =$
$6 + 8 =$	$5 + 8 =$	$4 + 9 =$	$9 + 4 =$

$9 + 2 =$	$9 + 6 =$	$8 + 8 =$	$9 + 5 =$
$8 + 3 =$	$7 + 7 =$	$2 + 9 =$	$8 + 7 =$
$9 + 4 =$	$9 + 8 =$	$8 + 4 =$	$3 + 9 =$
$8 + 6 =$	$7 + 5 =$	$9 + 9 =$	$7 + 4 =$
$7 + 4 =$	$6 + 5 =$	$8 + 5 =$	$9 + 3 =$
$6 + 7 =$	$7 + 6 =$	$9 + 7 =$	$6 + 6 =$

Rechnen mit benannten Zahlen. — Angewandtes Rechnen (siehe praktischen Theil).

### Zuzählen der Grundzahlen zu zweiziffrigen Zahlen.

$14 + 3 =$	$14 + 5 =$	$12 + 4 =$	$11 + 6 =$	$15 + 3 =$
$11 + 4 =$	$15 + 5 =$	$11 + 8 =$	$13 + 5 =$	$13 + 7 =$
$12 + 8 =$	$16 + 1 =$	$15 + 4 =$	$16 + 4 =$	$13 + 4 =$
$11 + 1 =$	$12 + 6 =$	$18 + 2 =$	$18 + 1 =$	$15 + 2 =$
$12 + 3 =$	$11 + 5 =$	$11 + 9 =$	$11 + 3 =$	$13 + 2 =$
$16 + 2 =$	$16 + 3 =$	$11 + 7 =$	$14 + 6 =$	$14 + 2 =$
$14 + 4 =$	$12 + 7 =$	$15 + 1 =$	$17 + 3 =$	$13 + 6 =$
$12 + 5 =$	$17 + 2 =$	$12 + 2 =$	$11 + 2 =$	$13 + 3 =$

Rechnen mit benannten Zahlen. — Reihenübungen. Sieh praktischen Theil.

### Abziehen.

#### Abziehen der Grundzahlen von zweiziffrigen Zahlen.

a) ohne, b) mit Übergang in den ersten Zehneraum.

$18 - 4 =$	$20 - 8 =$	$12 - 1 =$	$15 - 3 =$	$15 - 2 =$
$20 - 4 =$	$16 - 1 =$	$16 - 2 =$	$17 - 3 =$	$18 - 3 =$
$16 - 5 =$	$20 - 2 =$	$18 - 7 =$	$20 - 9 =$	$17 - 4 =$
$20 - 1 =$	$19 - 7 =$	$17 - 6 =$	$19 - 3 =$	$18 - 2 =$
$18 - 5 =$	$18 - 6 =$	$17 - 5 =$	$16 - 4 =$	$16 - 3 =$
$14 - 3 =$	$19 - 8 =$	$18 - 1 =$	$14 - 2 =$	$13 - 2 =$
$17 - 2 =$	$19 - 4 =$	$19 - 6 =$	$20 - 5 =$	$19 - 5 =$
$20 - 6 =$	$20 - 3 =$	$20 - 7 =$	$19 - 2 =$	$17 - 5 =$

$11 - 2 =$	$11 - 9 =$	$12 - 9 =$	$14 - 5 =$	$15 - 8 =$
$11 - 3 =$	$12 - 3 =$	$13 - 4 =$	$14 - 6 =$	$15 - 9 =$
$11 - 4 =$	$12 - 4 =$	$13 - 5 =$	$14 - 7 =$	$16 - 7 =$
$11 - 5 =$	$12 - 5 =$	$13 - 6 =$	$14 - 8 =$	$16 - 8 =$
$11 - 6 =$	$12 - 6 =$	$13 - 7 =$	$14 - 9 =$	$16 - 9 =$
$11 - 7 =$	$12 - 7 =$	$13 - 8 =$	$15 - 6 =$	$17 - 8 =$
$11 - 8 =$	$12 - 8 =$	$13 - 9 =$	$15 - 7 =$	$17 - 9 =$

11 — 3 =	12 — 4 =	13 — 9 =	14 — 6 =	15 — 8 =
11 — 5 =	12 — 6 =	13 — 5 =	14 — 9 =	16 — 8 =
11 — 2 =	12 — 3 =	13 — 8 =	14 — 5 =	16 — 7 =
11 — 4 =	12 — 5 =	13 — 6 =	14 — 7 =	16 — 9 =
11 — 8 =	12 — 9 =	13 — 4 =	15 — 9 =	17 — 9 =
11 — 6 =	12 — 7 =	13 — 7 =	15 — 7 =	17 — 8 =
11 — 9 =	12 — 8 =	14 — 8 =	15 — 6 =	18 — 9 =

12 — 3 =	15 — 6 =	11 — 4 =	14 — 5 =	11 — 8 =
13 — 8 =	12 — 7 =	12 — 4 =	12 — 6 =	16 — 9 =
13 — 6 =	12 — 9 =	12 — 9 =	11 — 7 =	11 — 3 =
16 — 8 =	11 — 5 =	17 — 9 =	13 — 7 =	18 — 9 =
15 — 8 =	14 — 7 =	16 — 7 =	14 — 8 =	13 — 5 =
12 — 8 =	11 — 9 =	13 — 4 =	15 — 7 =	12 — 5 =
14 — 6 =	14 — 9 =	17 — 8 =	13 — 9 =	15 — 9 =
		11 — 2 =		

9 + 3 =	12 — 3 =	12 — 9 =	8 + 6 =	14 — 6 =
14 — 8 =	9 + 2 =	11 — 2 =	11 — 9 =	9 + 7 =
16 — 7 =	16 — 9 =	6 + 7 =	13 — 7 =	13 — 6 =
8 + 3 =	11 — 3 =	11 — 8 =	5 + 8 =	13 — 8 =
13 — 5 =	9 + 6 =	15 — 6 =	15 — 9 =	5 + 9 =
14 — 9 =	14 — 5 =	9 + 4 =	13 — 4 =	13 — 9 =

Zuzählen zweiziffriger Zahlen zu den Grundzahlen.

2 + 13 =	3 + 15 =	3 + 11 =	2 + 11 =	4 + 16 =
6 + 13 =	1 + 12 =	1 + 17 =	1 + 13 =	1 + 19 =
1 + 18 =	5 + 12 =	5 + 13 =	1 + 15 =	3 + 17 =
1 + 16 =	7 + 11 =	4 + 14 =	3 + 12 =	6 + 12 =
3 + 14 =	1 + 14 =	9 + 11 =	6 + 11 =	5 + 15 =
4 + 12 =	5 + 11 =	8 + 12 =	2 + 16 =	4 + 11 =
7 + 12 =	8 + 11 =	2 + 18 =	1 + 11 =	5 + 14 =
6 + 14 =	4 + 13 =	2 + 15 =	3 + 16 =	4 + 15 =
2 + 12 =	2 + 17 =	7 + 13 =	2 + 14 =	3 + 13 =

Zusammenfassung aller durchgenommenen Übungen  
im Raume 1 bis 10.

$5 + 3 =$	$12 - 3 =$	$12 + 6 =$	$6 - 3 =$	$5 + 8 =$
$13 - 6 =$	$8 - 7 =$	$7 - 2 =$	$5 - 4 =$	$18 - 4 =$
$17 + 2 =$	$20 - 3 =$	$8 + 3 =$	$8 + 5 =$	$13 - 2 =$
$10 - 1 =$	$18 - 5 =$	$16 - 3 =$	$19 - 8 =$	$1 + 9 =$
$9 - 3 =$	$11 + 9 =$	$20 - 7 =$	$2 + 1 =$	$17 - 8 =$
$4 + 7 =$	$2 + 11 =$	$2 + 3 =$	$4 + 5 =$	$15 - 6 =$
$20 - 5 =$	$12 - 7 =$	$17 - 2 =$	$14 - 6 =$	$11 + 9 =$
$1 + 8 =$	$11 + 6 =$	$13 + 3 =$	$2 - 1 =$	$8 - 4 =$
$3 + 2 =$	$9 - 5 =$	$6 - 4 =$	$5 - 2 =$	$17 - 3 =$
$11 - 8 =$	$6 + 9 =$	$20 - 9 =$	$6 + 7 =$	$15 - 2 =$
$13 + 2 =$	$7 + 6 =$	$7 + 11 =$	$14 - 1 =$	$5 + 2 =$
$14 + 6 =$	$15 - 1 =$	$4 + 15 =$	$3 + 4 =$	$11 - 4 =$
$7 - 1 =$	$3 + 5 =$	$16 - 5 =$	$1 + 7 =$	$13 - 8 =$
$9 + 3 =$	$8 + 2 =$	$5 + 13 =$	$11 - 9 =$	$12 + 5 =$
$14 - 3 =$	$17 - 9 =$	$14 + 3 =$	$14 + 5 =$	$9 - 1 =$

$19 - 3 =$	$14 + 2 =$	$10 - 7 =$	$3 - 1 =$	$20 - 2 =$
$6 + 2 =$	$8 - 3 =$	$7 + 9 =$	$17 - 6 =$	$19 - 4 =$
$12 - 8 =$	$9 - 7 =$	$18 - 2 =$	$5 + 12 =$	$2 + 6 =$
$12 - 9 =$	$5 + 9 =$	$19 - 6 =$	$6 + 6 =$	$13 - 5 =$
$19 + 1 =$	$14 - 2 =$	$1 + 5 =$	$15 - 7 =$	$15 - 7 =$
$9 + 6 =$	$3 + 3 =$	$15 - 9 =$	$17 - 9 =$	$11 + 2 =$
$6 + 5 =$	$1 + 1 =$	$11 - 7 =$	$7 + 9 =$	$10 - 2 =$
$20 - 4 =$	$16 - 9 =$	$13 + 6 =$	$7 - 4 =$	$15 + 3 =$
$4 + 2 =$	$15 - 3 =$	$10 - 4 =$	$4 + 9 =$	$4 + 15 =$
$14 - 7 =$	$12 + 8 =$	$3 + 9 =$	$19 - 7 =$	$8 + 9 =$
$6 - 5 =$	$9 - 8 =$	$6 + 6 =$	$4 + 3 =$	$8 - 3 =$
$3 + 8 =$	$8 + 4 =$	$19 - 1 =$	$6 + 3 =$	$8 + 8 =$
$5 + 7 =$	$20 - 8 =$	$6 + 1 =$	$11 - 5 =$	$4 - 3 =$
$10 - 7 =$	$19 - 1 =$	$4 + 6 =$	$15 + 1 =$	$18 - 6 =$
$2 + 7 =$	$6 + 4 =$	$11 - 3 =$	$11 + 8 =$	$8 + 7 =$



14 — 8 =	11 — 2 =	16 + 4 =	10 — 3 =	9 — 5 =
3 + 6 =	20 — 2 =	16 — 1 =	7 + 4 =	8 + 9 =
1 + 4 =	19 — 4 =	9 + 1 =	12 — 6 =	5 + 6 =
14 — 5 =	2 + 6 =	1 + 2 =	5 + 2 =	12 — 1 =
18 + 1 =	13 — 5 =	14 — 8 =	17 — 5 =	5 + 3 =
7 + 5 =	15 — 7 =	11 + 5 =	9 + 7 =	7 + 3 =
9 — 2 =	11 + 2 =	6 — 1 =	16 — 6 =	13 — 9 =
4 + 8 =	10 — 2 =	8 — 2 =	7 — 3 =	12 + 1 =
19 — 2 =	15 + 3 =	6 + 8 =	16 — 2 =	3 — 2 =
8 + 1 =	4 + 15 =	18 — 1 =	16 — 4 =	8 — 5 =
5 + 5 =	8 + 9 =	4 + 4 =	4 + 2 =	9 + 4 =
14 — 4 =	14 — 7 =	2 + 5 =	11 — 3 =	20 — 1 =
13 + 1 =	8 — 3 =	16 — 8 =	16 + 1 =	1 + 3 =
12 + 2 =	8 + 8 =	18 + 2 =	12 + 3 =	12 — 6 =
7 — 6 =	18 — 6 =	17 + 3 =	10 — 9 =	13 — 7 =
8 + 8 =	17 — 5 =	5 — 1 =	7 + 8 =	4 — 1 =
17 — 3 =	3 + 1 =	9 + 9 =	18 — 3 =	8 + 6 =
8 + 6 =	18 — 9 =	1 + 6 =	16 — 5 =	9 + 8 =
17 — 1 =	16 — 7 =	2 + 6 =	5 + 2 =	20 — 6 =
5 + 4 =	13 — 4 =	12 — 5 =	15 — 8 =	3 + 5 =
7 + 12 =	10 — 6 =	15 + 5 =	12 — 4 =	15 — 7 =
12 + 5 =	9 + 5 =	14 + 1 =	14 + 4 =	8 + 8 =
9 — 1 =	9 + 7 =	9 — 4 =	8 + 1 =	4 — 2 =
	5 — 3 =	16 — 4 =	1 + 18 =	

Angewandtes Rechnen.

### Zusammenzählen mehrerer Summanden.

5 + 3 + 7 =	14 + 3 + 2 =	4 + 9 + 4 =
4 + 2 + 9 =	11 + 6 + 3 =	7 + 9 + 1 =
12 + 3 + 1 =	4 + 7 + 9 =	7 + 8 + 3 =
18 + 1 + 1 =	9 + 5 + 6 =	9 + 7 + 4 =

$$\begin{array}{lll}
 3 + 1 + 3 + 6 = & 3 + 6 + 3 + 8 = & 1 + 4 + 8 + 1 = \\
 6 + 3 + 1 + 5 = & 1 + 5 + 6 + 2 = & 3 + 5 + 7 + 2 = \\
 1 + 8 + 6 + 2 = & 7 + 4 + 8 + 1 = & 3 + 2 + 5 + 8 = \\
 4 + 8 + 1 + 7 = & 5 + 2 + 7 + 1 = & 13 + 2 + 4 + 1 =
 \end{array}$$

$$\begin{array}{ll}
 1 + 2 + 3 + 2 + 9 = & 1 + 9 + 3 + 3 + 2 = \\
 4 + 2 + 8 + 2 + 4 = & 3 + 5 + 4 + 5 + 2 = \\
 1 + 1 + 5 + 1 + 4 = & 2 + 2 + 5 + 4 + 5 =
 \end{array}$$

$$\begin{array}{llll}
 3 + 9 = & 5 + 3 + 4 + 4 = & 7 + 3 + 2 = & \\
 6 + 1 + 5 + 6 + 2 = & 4 + 2 + 5 + 2 + 6 + 1 = & & \\
 11 + 5 + 3 = & 8 + 5 = & 1 + 6 + 2 + 2 + 4 = & \\
 2 + 7 + 9 = & 9 + 7 = & 5 + 6 + 7 + 1 = & 8 + 6 + 5 =
 \end{array}$$

Angewandtes Rechnen.

## Vervielfachen.

### Einleitende Übungen.

$$\begin{array}{lllll}
 1 + 1 = & 2 + 2 = & 3 + 3 = & 4 + 4 = & 5 + 5 = \\
 6 + 6 = & 7 + 7 = & 8 + 8 = & 9 + 9 = & 10 + 10 =
 \end{array}$$

$$\begin{array}{lllll}
 3 + 3 = & 6 + 6 = & 4 + 4 = & 5 + 5 = & 7 + 7 = \\
 9 + 9 = & 1 + 1 = & 8 + 8 = & 2 + 2 = & 10 + 10 =
 \end{array}$$

$$\begin{array}{lll}
 1 + 1 + 1 = & 2 + 2 + 2 = & 3 + 3 + 3 = \\
 4 + 4 + 4 = & 5 + 5 + 5 = & 6 + 6 + 6 =
 \end{array}$$

$$\begin{array}{lll}
 5 + 5 + 5 = & 3 + 3 + 3 = & 1 + 1 + 1 = \\
 6 + 6 + 6 = & 4 + 4 + 4 = & 2 + 2 + 2 =
 \end{array}$$

$$\begin{array}{lll}
 & 7 + 7 = & 6 + 6 + 6 = & 9 + 9 = \\
 5 + 5 + 5 = & & 4 + 4 = & 8 + 8 = \\
 2 + 2 + 2 = & 1 + 1 + 1 = & & 10 + 10 = \\
 4 + 4 + 4 = & & 5 + 5 = & 3 + 3 + 3 =
 \end{array}$$

$$1 + 1 + 1 + 1 = 2 + 2 + 2 + 2 = 3 + 3 + 3 + 3 =$$

$$4 + 4 + 4 + 4 = 5 + 5 + 5 + 5 =$$

$$1 + 1 + 1 + 1 + 1 = 2 + 2 + 2 + 2 + 2 =$$

$$3 + 3 + 3 + 3 + 3 = 4 + 4 + 4 + 4 + 4 =$$

$$1 + 1 + 1 + 1 + 1 + 1 = 1 + 1 + 1 + 1 + 1 + 1 + 1 =$$

$$2 + 2 + 2 + 2 + 2 + 2 = 2 + 2 + 2 + 2 + 2 + 2 + 2 =$$

$$1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 =$$

$$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 =$$

$$1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 =$$

$$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 =$$

$$1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 =$$

$$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 =$$

$$2 + 2 + 2 + 2 = 3 + 3 + 3 + 3 + 3 =$$

$$5 + 5 = 1 + 1 + 1 + 1 = 7 + 7 =$$

$$4 + 4 + 4 + 4 + 4 = 6 + 6 + 6 =$$

$$1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 = 3 + 3 =$$

$$2 + 2 + 2 + 2 + 2 + 2 + 2 = 5 + 5 + 5 =$$

$$3 + 3 + 3 + 3 + 3 + 3 = 9 + 9 =$$

$$2 + 2 + 2 + 2 + 2 = 4 + 4 + 4 + 4 =$$

$$1 + 1 + 1 + 1 + 1 + 1 = 3 + 3 + 3 =$$

$$5 + 5 + 5 + 5 = 1 + 1 + 1 + 1 + 1 =$$

$$8 + 8 = 1 + 1 + 1 = 3 + 3 + 3 + 3 =$$

$$1 + 1 + 1 + 1 + 1 + 1 + 1 = 2 + 2 =$$

$$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 =$$

$$4 + 4 = 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 =$$

$$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 =$$

$$10 + 10 = 6 + 6 = 2 + 2 + 2 =$$

$$4 + 4 + 4 = 1 + 1 = 5 + 5 + 5 + 5 =$$

$$3 + 3 + 3 + 3 + 3 = 10 + 10 =$$

Angewandtes Rechnen an den bereits behandelten Normalbeispielen erweiternd.

## Einmaleinsübungen.

$2 \times 1 =$	$2 \times 6 =$	$2 \times 5 =$	$2 \times 10 =$
$2 \times 2 =$	$2 \times 7 =$	$2 \times 8 =$	$2 \times 4 =$
$2 \times 3 =$	$2 \times 8 =$	$2 \times 3 =$	$2 \times 7 =$
$2 \times 4 =$	$2 \times 9 =$	$2 \times 9 =$	$2 \times 1 =$
$2 \times 5 =$	$2 \times 10 =$	$2 \times 2 =$	$2 \times 6 =$

$3 \times 1 =$	$3 \times 4 =$	$3 \times 4 =$	$3 \times 5 =$
$3 \times 2 =$	$3 \times 5 =$	$3 \times 6 =$	$3 \times 3 =$
$3 \times 3 =$	$3 \times 6 =$	$3 \times 1 =$	$3 \times 2 =$

$3 \times 1 =$	$2 \times 9 =$	$2 \times 5 =$	$2 \times 2 =$
$2 \times 4 =$	$3 \times 2 =$	$3 \times 3 =$	$3 \times 6 =$
$2 \times 7 =$	$2 \times 8 =$	$2 \times 1 =$	$2 \times 10 =$
$3 \times 5 =$	$3 \times 6 =$	$3 \times 4 =$	$2 \times 5 =$

$1 \times 1 =$	$6 \times 1 =$	$1 \times 2 =$	$6 \times 2 =$
$2 \times 1 =$	$7 \times 1 =$	$2 \times 2 =$	$7 \times 2 =$
$3 \times 1 =$	$8 \times 1 =$	$3 \times 2 =$	$8 \times 2 =$
$4 \times 1 =$	$9 \times 1 =$	$4 \times 2 =$	$9 \times 2 =$
$5 \times 1 =$	$10 \times 1 =$	$5 \times 2 =$	$10 \times 2 =$

$1 \times 3 =$	$1 \times 4 =$	$2 \times 5 =$	$1 \times 7 =$
$2 \times 3 =$	$2 \times 4 =$	$3 \times 5 =$	$2 \times 7 =$
$3 \times 3 =$	$3 \times 4 =$	$4 \times 5 =$	$1 \times 8 =$
$4 \times 3 =$	$4 \times 4 =$	$1 \times 6 =$	$2 \times 8 =$
$5 \times 3 =$	$5 \times 4 =$	$2 \times 6 =$	$1 \times 9 =$
$6 \times 3 =$	$1 \times 5 =$	$3 \times 6 =$	$2 \times 9 =$

$1 \times 1 =$	$4 \times 4 =$	$6 \times 1 =$	$10 \times 1 =$
$2 \times 3 =$	$3 \times 1 =$	$6 \times 3 =$	$7 \times 2 =$
$1 \times 9 =$	$2 \times 7 =$	$1 \times 4 =$	$5 \times 4 =$
$2 \times 2 =$	$1 \times 5 =$	$2 \times 10 =$	$8 \times 2 =$
$1 \times 10 =$	$4 \times 1 =$	$2 \times 1 =$	$1 \times 6 =$
$2 \times 5 =$	$1 \times 2 =$	$3 \times 3 =$	$6 \times 2 =$
$2 \times 9 =$	$4 \times 3 =$	$1 \times 8 =$	$4 \times 5 =$
$4 \times 2 =$	$2 \times 4 =$	$3 \times 6 =$	$6 \times 3 =$
$8 \times 2 =$	$7 \times 1 =$	$10 \times 2 =$	$3 \times 5 =$

## Messen.

$1 + 1 =$	$1 + 1 + 1 =$	$2 + 2 =$	$2 + 2 + 2 =$
1 in 2 =	1 in 3 =	2 in 4 =	2 in 6 =
$3 + 3 =$	$3 + 3 + 3 =$	$4 + 4 =$	$4 + 4 + 4 =$
3 in 6 =	3 in 9 =	4 in 8 =	4 in 12 =
$5 + 5 =$	$5 + 5 + 5 =$	$6 + 6 =$	$6 + 6 + 6 =$
5 in 10 =	5 in 15 =	6 in 12 =	6 in 18 =
$7 + 7 =$	$8 + 8 =$	$9 + 9 =$	$10 + 10 =$
7 in 14 =	8 in 16 =	9 in 18 =	10 in 20 =
1 in 2 =	2 in 4 =	3 in 6 =	4 in 8 =
1 in 3 =	2 in 6 =	3 in 9 =	4 in 12 =
5 in 10 =	6 in 12 =	7 in 14 =	9 in 18 =
5 in 15 =	6 in 18 =	8 in 16 =	10 in 20 =
3 in 6 =	2 in 6 =	4 in 8 =	1 in 3 =
2 in 4 =	3 in 9 =	6 in 12 =	9 in 18 =
4 in 12 =	8 in 16 =	7 in 14 =	10 in 20 =
5 in 10 =	5 in 15 =	6 in 18 =	1 in 2 =

Angewandtes Rechnen sieh praktischen Theil.

## Theilen.

### Das Theilen durch 2.

$1 + 1 =$	$2 + 2 =$	$3 + 3 =$	$4 + 4 =$
$\frac{1}{2}$ v. 2 =	$\frac{1}{2}$ v. 4 =	$\frac{1}{2}$ v. 6 =	$\frac{1}{2}$ v. 8 =
$5 + 5 =$	$6 + 6 =$	$7 + 7 =$	$8 + 8 =$
$\frac{1}{2}$ v. 10 =	$\frac{1}{2}$ v. 12 =	$\frac{1}{2}$ v. 14 =	$\frac{1}{2}$ v. 16 =
	$9 + 9 =$	$10 + 10 =$	
	$\frac{1}{2}$ v. 18 =	$\frac{1}{2}$ v. 20 =	

$$\begin{array}{l|l|l|l} \frac{1}{2} \text{ v. } 2 = & \frac{1}{2} \text{ v. } 6 = & \frac{1}{2} \text{ v. } 10 = & \frac{1}{2} \text{ v. } 14 = \\ \frac{1}{2} \text{ v. } 4 = & \frac{1}{2} \text{ v. } 8 = & \frac{1}{2} \text{ v. } 12 = & \frac{1}{2} \text{ v. } 16 = \\ & \frac{1}{2} \text{ v. } 18 = & \frac{1}{2} \text{ v. } 20 = & \end{array}$$

$\frac{1}{2}$  v. 8, 2, 10, 6, 18, 4, 14, 20, 12, 16.

### Das Theilen durch 3.

$$\begin{array}{l|l|l|l} 1+1+1 = & 2+2+2 = & 3+3+3 = & 4+4+4 = \\ \frac{1}{3} \text{ v. } 3 = & \frac{1}{3} \text{ v. } 6 = & \frac{1}{3} \text{ v. } 9 = & \frac{1}{3} \text{ v. } 12 = \\ & 5+5+5 = & 6+6+6 = & \\ & \frac{1}{3} \text{ v. } 15 = & \frac{1}{3} \text{ v. } 18 = & \end{array}$$

$$\begin{array}{l|l|l|l} \frac{1}{3} \text{ v. } 3 = & \frac{1}{3} \text{ v. } 6 = & \frac{1}{3} \text{ v. } 9 = & \frac{1}{3} \text{ v. } 12 = \\ & \frac{1}{3} \text{ v. } 15 = & \frac{1}{3} \text{ v. } 18 = & \end{array}$$

$\frac{1}{3}$  v. 6, 12, 3, 15, 9, 18.

Angewandtes Rechnen sieh praktischen Theil.





