

Lucretia Key

Methodisch-geordnete Aufgaben

für das

Tafelrechnen.

Von

Friedr. Wilh. Kellner.

Erstes Heft.

Die Zahlenkreise von 1 bis 10 und von 10 bis 100.

(Die vier Species mit gleichbenannten Zahlen.)

Zehnte Auflage.

Neval, 1899.

Verlag von Franz Kluge.

ESTICA

A-5200

Aufgaben für das Tafelrechnen sind auch in russischer Uebersetzung
in Blumberg erschienen.

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Дозволено цензурою

Ревель, 13 Апрель 1899 года.

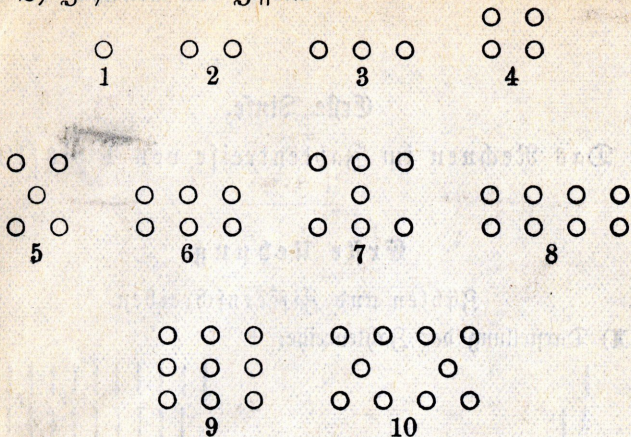


53511530

Март, 1899.

Verlag von Franz Kluge.

2) Zahlbilder und Ziffern.



3) Aufgabe. Darstellung der Zahlen durch Ringe oder Punkte in verschiedenen Gruppierungen.

Zweite Übung.

Zusammenzählen und Abziehen.*)

I.

1) $1 + 1 =$
 $2 - 1 =$
 $1 - 1 =$
 ~~$2 - 2 =$~~
 ~~$2 + 1 =$~~
 $3 - 1 =$
 $1 + 2 =$
 $3 - 2 =$
 $3 - 3 =$
 $2 - 1 =$
 $1 + 2 =$
 $3 - 2 =$

2) $3 + 1 =$
 ~~$4 - 1 =$~~
 ~~$2 + 2 =$~~
 $4 - 2 =$
 $1 + 3 =$
 $4 - 3 =$
 $4 - 4 =$
 $1 + 2 =$
 $4 - 2 =$
 $1 + 3 =$
 $3 - 2 =$
 $2 + 2 =$

3) $4 + 1 =$
 ~~$5 - 1 =$~~
 $3 + 2 =$
 ~~$5 - 2 =$~~
 ~~$2 + 3 =$~~
 $5 - 3 =$
 $1 + 4 =$
 $5 - 4 =$
 $5 - 5 =$
 $2 + 2 =$
 $4 - 3 =$
 $2 + 3 =$

*) Auf der 1. und 2. Lehrstufe schreiben die Schüler die Aufgaben, so wie sie hier stehen, auf die Schiefertafel, rechnen sie im Kopf aus und schreiben das Resultat daneben.

4) $5 + 1 =$
 $6 - 1 =$
 $4 + 2 =$
 $6 - 2 =$
 $3 + 3 =$
 $6 - 3 =$
 $2 + 4 =$
 $6 - 4 =$

 $1 + 5 =$
 $6 - 5 =$
 $6 - 6 =$
 $2 + 3 =$
 $5 - 2 =$
 $4 - 2 =$
 $2 + 4 =$
 $4 - 3 =$

5) $6 + 1 =$
 $7 - 1 =$
 $5 + 2 =$
 $7 - 2 =$
 $4 + 3 =$
 $7 - 3 =$
 $3 + 4 =$
 $7 - 4 =$
 $2 + 5 =$
 $7 - 5 =$
 $1 + 6 =$
 $7 - 6 =$
 $2 + 3 =$
 $6 - 3 =$
 $4 - 2 =$
 $3 + 4 =$

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

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

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

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

II.

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

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

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

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

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

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

III.

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

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

3) $3+1=$
 $3-1=$
 $3+2=$
 $3-2=$
 $3+3=$
 $3-3=$
 $3+4=$
 $3+5=$
 $3+6=$
 $3+7=$

4) $4 + 1 =$
 $4 - 1 =$
 $4 + 2 =$
 $4 - 2 =$
 $4 + 3 =$
 $4 - 3 =$
 $4 + 4 =$
 $4 - 4 =$
 $4 + 5 =$
 $4 + 6 =$

5) $5 + 1 =$
 $5 - 1 =$
 $5 + 2 =$
 $5 - 2 =$
 $5 + 3 =$
 $5 - 3 =$
 $5 + 4 =$
 $5 - 4 =$
 $5 + 5 =$
 $5 - 5 =$

6) $6 + 1 =$
 $6 - 1 =$
 $6 + 2 =$
 $6 - 2 =$
 $6 + 3 =$
 $6 - 3 =$
 $6 + 4 =$
 $6 - 4 =$
 $6 - 5 =$
 $6 - 6 =$

7) $7 + 1 =$
 $7 - 1 =$
 $7 + 2 =$
 $7 - 2 =$
 $7 + 3 =$
 $7 - 3 =$
 $7 - 4 =$
 $7 - 5 =$
 $7 - 6 =$
 $7 - 7 =$

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

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

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

IV.

1) $1 + 2 =$
 $3 + 2 =$
 $5 + 2 =$
 $7 + 2 =$

2) $9 - 2 =$
 $7 - 2 =$
 $5 - 2 =$
 $3 - 2 =$

3) $2 + 2 =$
 $4 + 2 =$
 $6 + 2 =$
 $8 + 2 =$

4) $10 - 2 =$
 $8 - 2 =$
 $6 - 2 =$
 $4 - 2 =$

V.

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

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

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

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

5) $1 + 3 =$	6) $8 + 2 =$	7) $10 - 2 =$	8) $10 - 6 =$
$4 + 4 =$	$3 + 4 =$	$6 - 3 =$	$8 - 5 =$
$5 + 3 =$	$2 + 7 =$	$4 - 2 =$	$9 - 7 =$
$9 + 1 =$	$6 + 3 =$	$9 - 5 =$	$8 - 3 =$
$4 + 2 =$	$4 + 1 =$	$8 - 4 =$	<u>$10 - 7 =$</u>
$7 + 3 =$	$2 + 5 =$	$10 - 3 =$	$8 - 6 =$
$5 + 2 =$	$4 + 6 =$	$7 - 1 =$	$9 - 3 =$
$1 + 4 =$	$1 + 8 =$	<u>$3 - 3 =$</u>	$9 - 6 =$
$8 + 2 =$	$3 + 7 =$	$5 - 4 =$	$10 - 8 =$
$5 + 5 =$	$4 + 5 =$	$9 - 8 =$	$9 - 4 =$
$2 + 6 =$	$2 + 8 =$	$10 - 5 =$	$6 - 6 =$
$3 + 4 =$	$6 + 2 =$	$9 - 2 =$	$8 - 7 =$
$1 + 8 =$	$2 + 4 =$	$6 - 5 =$	$10 - 9 =$
$6 + 4 =$	$1 + 9 =$	$10 - 4 =$	$8 - 3 =$

VI.

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

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

VII.

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

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

7) $2 = 10 -$	$3 = 7 -$	8) $5 = 6 -$	$3 = 10 -$
$1 = 7 -$	$0 = 4 -$	$0 = 7 -$	$4 = 7 -$
$2 = 9 -$	$1 = 8 -$	$7 = 10 -$	$5 = 8 -$
$2 = 8 -$	$5 = 9 -$	$1 = 9 -$	$1 = 10 -$
$4 = 10 -$	$4 = 8 -$	$2 = 7 -$	$2 = 5 -$

VIII.

1) $1 + 1 - 1 =$	2) $5 - 1 - 2 =$	3) $6 - 1 - 2 =$
$1 + 2 - 1 =$	$5 - 2 - 2 =$	$6 - 2 - 3 =$
$2 + 1 + 1 =$	$5 - 3 - 1 =$	$6 - 4 - 1 =$
$2 + 2 - 1 =$	$4 + 1 + 1 =$	$5 + 1 + 1 =$
$3 + 1 - 2 =$	$4 + 2 - 1 =$	$5 + 2 - 1 =$
$1 + 3 - 1 =$	$3 + 2 + 1 =$	$4 + 2 + 1 =$
$4 - 1 - 2 =$	$3 + 3 - 2 =$	$4 + 3 - 2 =$
$4 - 3 + 2 =$	$2 + 2 + 2 =$	$3 + 3 + 1 =$
$3 + 1 + 1 =$	$2 + 4 - 3 =$	$3 + 4 - 3 =$
$2 + 2 + 1 =$	$1 + 3 + 2 =$	$2 + 3 + 2 =$
$3 + 2 - 1 =$	$1 + 5 + 4 =$	$2 + 5 - 4 =$
$1 + 4 - 3 =$	$1 + 4 + 1 =$	$1 + 4 + 2 =$
$4 + 1 - 2 =$	$2 + 1 + 3 =$	$1 + 6 - 5 =$

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

$$\begin{aligned}
 7) \quad & 5 + 3 - 2 = \\
 & 4 + 2 + 2 = \\
 & 4 + 4 - 3 = \\
 & 3 + 3 + 2 = \\
 & 3 + 5 - 4 = \\
 & 2 + 4 + 2 = \\
 & 2 + 6 - 5 = \\
 & 1 + 7 - 6 =
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & 5 + 2 + 2 = \\
 & 5 + 4 - 3 = \\
 & 4 + 3 + 2 = \\
 & 3 + 6 - 4 = \\
 & 3 + 3 + 3 = \\
 & 2 + 7 - 5 = \\
 & 1 + 5 + 3 = \\
 & 1 + 8 - 6 =
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & 6 + 2 + 2 = \\
 & 6 + 4 - 3 = \\
 & 5 + 3 + 2 = \\
 & 5 + 5 - 4 = \\
 & 4 + 4 + 2 = \\
 & 4 + 6 - 5 = \\
 & 3 + 7 - 6 = \\
 & 2 + 8 - 7 =
 \end{aligned}$$

IX.

$$\begin{aligned}
 1) \quad & 3 + 4 + 3 = \\
 & 8 - 4 - 4 = \\
 & 4 + 1 - 3 = \\
 & 2 + 5 + 2 = \\
 10) \quad & 10 - 4 - 2 = \\
 & 3 + 6 - 4 = \\
 & 2 + 1 + 3 = \\
 & 6 - 2 - 2 = \\
 & 7 + 3 - 4 =
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 1 + 6 + 3 = \\
 & 9 - 6 - 1 = \\
 & 5 + 4 - 4 = \\
 & 2 + 3 + 4 = \\
 10) \quad & 10 - 5 - 3 = \\
 & 1 + 7 - 5 = \\
 & 2 + 5 + 1 = \\
 & 8 - 4 - 3 = \\
 & 3 + 6 - 4 =
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 2 + 4 + 3 = \\
 & 8 - 5 - 2 = \\
 & 6 + 4 - 5 = \\
 & 1 + 2 + 7 = \\
 10) \quad & 10 - 6 - 2 = \\
 & 3 + 5 - 7 = \\
 & 4 + 4 + 1 = \\
 & 9 - 3 - 3 = \\
 & 2 + 3 - 4 =
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 1 + 2 + 3 = \\
 & 4 - 2 - 1 = \\
 & 5 - 3 + 8 = \\
 & 2 + 7 - 6 = \\
 & 7 - 4 + 2 = \\
 & 6 - 3 + 7 = \\
 & 2 + 7 - 8 = \\
 & 9 - 7 + 6 = \\
 10) \quad & 10 - 6 + 3 =
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & 9 - 4 + 2 = \\
 & 2 + 6 - 4 = \\
 & 7 - 4 + 5 = \\
 & 8 - 3 + 2 = \\
 & 6 - 4 + 3 = \\
 & 3 + 3 - 4 = \\
 & 1 + 9 - 5 = \\
 & 10 - 6 + 4 = \\
 & 9 - 7 + 7 =
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & 8 - 3 + 4 = \\
 & 5 + 4 - 7 = \\
 & 8 - 4 + 6 = \\
 & 6 + 3 - 8 = \\
 & 9 - 4 - 2 = \\
 & 3 + 7 - 6 = \\
 & 8 - 5 + 6 = \\
 & 2 + 8 - 6 = \\
 10) \quad & 10 - 7 + 5 =
 \end{aligned}$$

X.

$$\begin{aligned}
 1) \quad & 2 + 3 + 2 + 1 = \\
 & 6 + 1 + 2 + 1 = \\
 & 8 - 2 - 2 - 2 = \\
 & 3 + 3 + 3 - 4 = \\
 & 3 + 6 - 5 + 4 = \\
 & 7 + 1 + 2 - 5 = \\
 & 5 - 3 - 1 - 1 = \\
 & 1 + 2 + 3 + 4 = \\
 10) \quad & 10 - 3 - 4 - 2 =
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 8 + 1 + 1 - 9 = \\
 & 3 + 2 + 4 - 8 = \\
 & 5 + 1 + 3 - 4 = \\
 & 3 + 7 - 6 - 2 = \\
 & 8 - 5 + 3 - 5 = \\
 & 9 + 1 - 4 - 4 = \\
 & 4 + 5 - 7 + 5 = \\
 & 4 + 3 + 3 - 8 = \\
 10) \quad & 10 - 9 + 8 - 2 =
 \end{aligned}$$

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

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

XI.

1) $6 = 5 + 4 - ?$
 $3 = 4 + 5 - ?$
 $5 = 4 + 4 - ?$
 $5 = 2 + 7 - ?$
 $2 = 3 + 3 - ?$
 $4 = 5 + 5 - ?$
 $3 = 1 + 9 - ?$
 $2 = 2 + 7 - ?$

2) $4 = 2 + 6 - ?$
 $3 = 1 + 8 - ?$
 $5 = 6 + 3 - ?$
 $4 = 3 + 6 - ?$
 $2 = 3 + 5 - ?$
 $5 = 3 + 4 - ?$
 $1 = 4 + 4 - ?$
 $3 = 3 + 5 - ?$

3) $9 = 6 - 4 + ?$
 $6 = 5 - 2 + ?$
 $9 = 8 - 5 + ?$
 $7 = 9 - 6 + ?$
 $4 = 8 - 7 + ?$
 $5 = 6 - 4 + ?$
 $8 = 9 - 5 + ?$
 $8 = 7 - 4 + ?$

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

Dritte Übung.

Vervielfältigen, Enthaltensein und Theilen.

I.

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

2) $6 \times 1 =$
 $1 \times 6 =$
 $3 \times 2 =$
 $2 \times 3 =$
 $7 \times 1 =$
 $1 \times 7 =$
 $8 \times 1 =$
 $1 \times 8 =$
 $4 \times 2 =$
 $2 \times 4 =$

3) $9 \times 1 =$
 $1 \times 9 =$
 $3 \times 3 =$
 $10 \times 1 =$
 $1 \times 10 =$
 $5 \times 2 =$
 $2 \times 5 =$
 $2 \times 3 =$
 $2 \times 2 =$
 $5 \times 1 =$

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

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

II.

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

III. *)

1) $1 \text{ in } 1 =$	2) $1 \text{ in } 6 =$	3) $1 \text{ in } 9 =$	4) $1 \text{ in } 7 =$
$1 \text{ in } 2 =$	$6 \text{ in } 6 =$	$9 \text{ in } 9 =$	$8 \text{ in } 8 =$
$2 \text{ in } 2 =$	$2 \text{ in } 6 =$	$3 \text{ in } 9 =$	$1 \text{ in } 3 =$
$1 \text{ in } 3 =$	$3 \text{ in } 6 =$	$1 \text{ in } 10 =$	$2 \text{ in } 8 =$
$3 \text{ in } 3 =$	$1 \text{ in } 7 =$	$10 \text{ in } 10 =$	$6 \text{ in } 6 =$
$1 \text{ in } 4 =$	$7 \text{ in } 7 =$	$2 \text{ in } 10 =$	$1 \text{ in } 5 =$
$4 \text{ in } 4 =$	$1 \text{ in } 8 =$	$5 \text{ in } 10 =$	$2 \text{ in } 4 =$
$2 \text{ in } 4 =$	$8 \text{ in } 8 =$	$2 \text{ in } 6 =$	$3 \text{ in } 3 =$
$1 \text{ in } 5 =$	$2 \text{ in } 8 =$	$3 \text{ in } 6 =$	$1 \text{ in } 9 =$
$5 \text{ in } 5 =$	$4 \text{ in } 8 =$	$2 \text{ in } 8 =$	$2 \text{ in } 10 =$
5) $2 \text{ in } 2 =$	6) $3 \text{ in } 3 =$	7) $3 \text{ in } 6 =$	8) $2 \text{ in } 6 =$
$2 \text{ in } 4 =$	$3 \text{ in } 6 =$	$1 \text{ in } 4 =$	$1 \text{ in } 9 =$
$2 \text{ in } 6 =$	$3 \text{ in } 9 =$	$2 \text{ in } 10 =$	$3 \text{ in } 9 =$
$2 \text{ in } 8 =$	$4 \text{ in } 8 =$	$7 \text{ in } 7 =$	$4 \text{ in } 8 =$
$2 \text{ in } 10 =$	$5 \text{ in } 10 =$	$2 \text{ in } 4 =$	$6 \text{ in } 6 =$

IV.

1) $1 \times 6 =$	2) $1 \text{ in } 1 =$	3) $2 \times 5 =$	4) $5 \text{ in } 10 =$
$1 \text{ in } 2 =$	$1 \times 9 =$	$8 \text{ in } 8 =$	$3 \times 2 =$
$3 \times 3 =$	$2 \text{ in } 6 =$	$3 \times 3 =$	$1 \text{ in } 7 =$
$3 \text{ in } 6 =$	$3 \times 2 =$	$2 \text{ in } 8 =$	$2 \times 4 =$
$4 \times 1 =$	$3 \text{ in } 9 =$	$2 \times 2 =$	$4 \text{ in } 8 =$
$1 \text{ in } 3 =$	$8 \times 1 =$	$3 \text{ in } 6 =$	$9 \times 1 =$
$2 \times 4 =$	$2 \text{ in } 4 =$	$4 \times 2 =$	$3 \text{ in } 9 =$
$2 \text{ in } 2 =$	$10 \times 1 =$	$2 \text{ in } 10 =$	$5 \times 2 =$

*) Aufgaben wie: $2 \text{ in } 6 = 3$ sind zu lesen: 2 ist in 6 dreimal enthalten; oder 2 steckt in 6 dreimal.

- 5) 4 in 8 = 6) $2 \times 4 =$ 7) 5 in 5 = 8) $3 \times 3 =$
 $1 \times 7 =$ $2 \text{ in } 6 =$ $4 \times 2 =$ $4 \text{ in } 8 =$
 $2 \text{ in } 10 =$ $3 \times 3 =$ $2 \text{ in } 8 =$ $5 \times 2 =$
 $3 \times 2 =$ $5 \text{ in } 10 =$ $2 \times 5 =$ $3 \text{ in } 6 =$
 $4 \text{ in } 4 =$ $3 \times 2 =$ $3 \text{ in } 9 =$ $2 \times 4 =$
 $2 \times 5 =$ $4 \text{ in } 8 =$ $2 \times 2 =$ $2 \text{ in } 6 =$
 $6 \text{ in } 6 =$ $1 \times 9 =$ $8 \text{ in } 8 =$ $3 \times 2 =$
 $8 \times 1 =$ $3 \text{ in } 6 =$ $10 \times 1 =$ $2 \text{ in } 10 =$

V.*)

- 1) $\frac{1}{2}$ v. 2 = 2) $\frac{1}{4}$ v. 4 = 3) $\frac{1}{4}$ v. 4 =
 $\frac{1}{2}$ v. 4 = $\frac{1}{4}$ v. 8 = $\frac{1}{2}$ v. 6 =
 $\frac{1}{2}$ v. 6 = $\frac{1}{5}$ v. 5 = $\frac{1}{5}$ v. 8 =
 $\frac{1}{2}$ v. 8 = $\frac{1}{5}$ v. 10 = $\frac{1}{5}$ v. 10 =
 $\frac{1}{2}$ v. 10 = $\frac{1}{6}$ v. 6 = $\frac{1}{5}$ v. 6 =
 $\frac{1}{3}$ v. 3 = $\frac{1}{7}$ v. 7 = $\frac{1}{5}$ v. 8 =
 $\frac{1}{3}$ v. 6 = $\frac{1}{8}$ v. 8 = $\frac{1}{4}$ v. 5 =
 $\frac{1}{3}$ v. 9 = $\frac{1}{9}$ v. 9 = $\frac{1}{5}$ v. 9 =
 $\frac{1}{3}$ v. 8 = $\frac{1}{10}$ v. 10 = $\frac{1}{5}$ v. 10 =
- 4) $\frac{1}{2}$ v. 4 = 5) $\frac{1}{3}$ v. 6 = 6) $\frac{1}{2}$ v. 6 = 7) $\frac{1}{2}$ v. 8 =
 $\frac{1}{3}$ v. 9 = $\frac{1}{3}$ v. 8 = $\frac{1}{3}$ v. 9 = $\frac{1}{3}$ v. 6 =
 $\frac{1}{4}$ v. 8 = $\frac{1}{5}$ v. 3 = $\frac{1}{4}$ v. 4 = $\frac{1}{4}$ v. 8 =
 $\frac{1}{5}$ v. 5 = $\frac{1}{4}$ v. 8 = $\frac{1}{5}$ v. 10 = $\frac{1}{4}$ v. 6 =
 $\frac{1}{4}$ v. 4 = $\frac{1}{5}$ v. 10 = $\frac{1}{5}$ v. 10 = $\frac{1}{4}$ v. 2 =

VI.

- 1) $1 = \frac{1}{2}$ v. ? 2) $1 = \frac{1}{4}$ v. ? 3) $3 = \frac{1}{2}$ v. ?
 $2 = \frac{1}{2}$ v. ? $2 = \frac{1}{4}$ v. ? $1 = \frac{1}{5}$ v. ?
 $3 = \frac{1}{3}$ v. ? $1 = \frac{1}{5}$ v. ? $2 = \frac{1}{2}$ v. ?
 $4 = \frac{1}{2}$ v. ? $2 = \frac{1}{5}$ v. ? $1 = \frac{1}{6}$ v. ?
 $5 = \frac{1}{2}$ v. ? $1 = \frac{1}{6}$ v. ? $3 = \frac{1}{3}$ v. ?
 $1 = \frac{1}{3}$ v. ? $1 = \frac{1}{7}$ v. ? $2 = \frac{1}{4}$ v. ?
 $2 = \frac{1}{3}$ v. ? $1 = \frac{1}{8}$ v. ? $1 = \frac{1}{9}$ v. ?
 $3 = \frac{1}{3}$ v. ? $1 = \frac{1}{9}$ v. ? $1 = \frac{1}{4}$ v. ?
 $2 = \frac{1}{2}$ v. ? $1 = \frac{1}{10}$ v. ? $2 = \frac{1}{5}$ v. ?

*) $\frac{1}{2}$ v. 2; $\frac{1}{3}$ v. 3 u. f. w. wird gelesen. Die Hälfte von 2; der dritte Theil (oder das Drittel) von 3 u. f. w.

$$\begin{array}{l}
 4) \quad 2 = \frac{1}{2} \text{ v. ?} \\
 \quad 3 = \frac{1}{3} \text{ v. ?} \\
 \quad 2 = \frac{1}{4} \text{ v. ?} \\
 \quad 1 = \frac{1}{5} \text{ v. ?} \\
 \quad 3 = \frac{1}{2} \text{ v. ?} \\
 \quad 1 = \frac{1}{4} \text{ v. ?}
 \end{array}$$

$$\begin{array}{l}
 5) \quad 2 = \frac{1}{3} \text{ v. ?} \\
 \quad 4 = \frac{1}{2} \text{ v. ?} \\
 \quad 2 = \frac{1}{4} \text{ v. ?} \\
 \quad 3 = \frac{1}{2} \text{ v. ?} \\
 \quad 2 = \frac{1}{5} \text{ v. ?} \\
 \quad 3 = \frac{1}{3} \text{ v. ?}
 \end{array}$$

$$\begin{array}{l}
 6) \quad 5 = \frac{1}{2} \text{ v. ?} \\
 \quad 1 = \frac{1}{6} \text{ v. ?} \\
 \quad 1 = \frac{1}{9} \text{ v. ?} \\
 \quad 2 = \frac{1}{5} \text{ v. ?} \\
 \quad 2 = \frac{1}{2} \text{ v. ?} \\
 \quad 2 = \frac{1}{4} \text{ v. ?}
 \end{array}$$

VII.

$$\begin{array}{l}
 1) \quad 6 + 3 = \\
 \quad 2 \times 5 = \\
 \quad 7 - 2 = \\
 \quad 2 \text{ in } 6 = \\
 \quad 3 + 5 = \\
 \quad 4 \times 2 = \\
 \quad 10 - 5 = \\
 \quad \frac{1}{2} \text{ v. } 6 = \\
 \quad 2 + 4 = \\
 \quad 1 \times 9 = \\
 \quad 6 - 3 = \\
 \quad 2 \text{ in } 4 =
 \end{array}$$

$$\begin{array}{l}
 2) \quad 4 - 4 = \\
 \quad \frac{1}{2} \text{ v. } 6 = \\
 \quad 4 + 6 = \\
 \quad 3 \times 3 = \\
 \quad 4 - 3 = \\
 \quad 3 \text{ in } 9 = \\
 \quad 3 + 7 = \\
 \quad 2 \times 2 = \\
 \quad 9 - 7 = \\
 \quad \frac{1}{4} \text{ v. } 8 = \\
 \quad 4 + 4 = \\
 \quad 3 \times 2 =
 \end{array}$$

$$\begin{array}{l}
 3) \quad 8 \times 1 = \\
 \quad 5 + 5 = \\
 \quad 4 \text{ in } 8 = \\
 \quad 10 - 6 = \\
 \quad 2 \times 4 = \\
 \quad 3 + 6 = \\
 \quad \frac{1}{2} \text{ v. } 10 = \\
 \quad 8 - 3 = \\
 \quad 5 \times 2 = \\
 \quad 7 + 2 = \\
 \quad 2 \text{ in } 10 = \\
 \quad 9 - 4 =
 \end{array}$$

$$\begin{array}{l}
 4) \quad 2 \text{ in } 8 = \\
 \quad 6 - 5 = \\
 \quad 2 \times 5 = \\
 \quad 4 + 3 = \\
 \quad 3 \text{ in } 3 = \\
 \quad 7 - 4 = \\
 \quad 4 \times 2 = \\
 \quad 2 + 6 = \\
 \quad 5 \text{ in } 10 = \\
 \quad 9 - 5 = \\
 \quad 2 \times 3 = \\
 \quad 2 + 8 =
 \end{array}$$

VIII.

$$\begin{array}{l}
 1) \quad 2 \times 4 + 1 = \\
 \quad 1 \times 5 + 4 = \\
 \quad 2 \times 2 + 5 = \\
 \quad 3 \times 3 + 1 = \\
 \quad 1 \times 7 + 2 = \\
 \quad 3 \times 2 + 2 = \\
 \quad 1 \times 3 + 6 = \\
 \quad 2 \times 1 + 5 =
 \end{array}$$

$$\begin{array}{l}
 2) \quad 4 \times 2 + 2 = \\
 \quad 2 \times 3 + 2 = \\
 \quad 4 \times 1 + 4 = \\
 \quad 2 \times 2 + 6 = \\
 \quad 6 \times 1 + 3 = \\
 \quad 3 \times 3 + 1 = \\
 \quad 1 \times 4 + 5 = \\
 \quad 3 \times 2 + 3 =
 \end{array}$$

$$\begin{array}{l}
 3) \quad 3 \times 3 - 2 = \\
 \quad 8 \times 1 - 4 = \\
 \quad 2 \times 5 - 6 = \\
 \quad 4 \times 2 - 5 = \\
 \quad 2 \times 3 - 3 = \\
 \quad 1 \times 9 - 7 = \\
 \quad 5 \times 2 - 8 = \\
 \quad 2 \times 2 - 3 =
 \end{array}$$

$$\begin{array}{l}
 4) \quad 10 \times 1 - 9 = \\
 \quad 2 \times 4 - 6 = \\
 \quad 3 \times 3 - 4 = \\
 \quad 1 \times 7 - 4 = \\
 \quad 3 \times 2 - 2 = \\
 \quad 6 \times 1 - 5 = \\
 \quad 2 \times 5 - 7 = \\
 \quad 4 \times 2 - 3 =
 \end{array}$$

$$\begin{array}{l}
 5) \quad \frac{1}{2} \text{ v. } 4 (+3) = \\
 \quad \frac{1}{3} \text{ v. } 8 (+5) = \\
 \quad \frac{1}{3} \text{ v. } 9 (+4) = \\
 \quad \frac{1}{4} \text{ v. } 4 (+7) = \\
 \quad \frac{1}{5} \text{ v. } 10 (+8) = \\
 \quad \frac{1}{3} \text{ v. } 6 (+5) = \\
 \quad \frac{1}{3} \text{ v. } 6 (+6) = \\
 \quad \frac{1}{4} \text{ v. } 2 (+4) =
 \end{array}$$

$$\begin{array}{l}
 6) \quad 2 \text{ in } (3 + 1) = \\
 \quad 3 \text{ in } (5 + 4) = \\
 \quad 1 \text{ in } (6 - 2) = \\
 \quad 4 \text{ in } (6 + 2) = \\
 \quad 3 \text{ in } (8 - 2) = \\
 \quad 5 \text{ in } (2 + 3) = \\
 \quad 2 \text{ in } (3 \times 2) = \\
 \quad 4 \text{ in } (2 \times 4) =
 \end{array}$$

Zweite Stufe.

Das Rechnen im Zahlenkreise von 1 bis 100.

Erste Übung.

Zählen.

I.

Schreibe auf:

1) $10 = 10 + 0$ *)	2) $20 = 20 + 0$	3) $30 = 30 + 0$
$11 = 10 + 1$	$21 = 20 + 1$	$31 = 30 + 1$
$12 = 10 + 2$	$22 = 20 + 2$	$32 = 30 + 2$
bis	bis	bis
$20 = 20 + 0$	$30 = 30 + 0$	$40 = 40 + 0$

4) $40 = 40 + 0$	5) $60 = 60 + 0$	6) $90 = 90 + 0$
$41 = 40 + 1$	$61 = 60 + 1$	$91 = 90 + 1$
bis	bis	bis
$50 = 50 + 0$	$70 = 70 + 0$	$100 = 100 + 0$

7) $10 + 9 = 19$ **)	8) $20 + 9 = 29$	9) $30 + 9 = 39$
$10 + 8 = 18$	$20 + 8 = 28$	$30 + 8 = 38$
bis	bis	bis
$10 + 0 = 10$	$20 + 0 = 20$	$30 + 0 = 30$

10) $50 + 9 = 59$	11) $70 + 9 = 79$	12) $80 + 9 = 89$
$50 + 8 = 58$	$70 + 8 = 78$	$80 + 8 = 88$
bis	bis	bis
$50 + 0 = 50$	$70 + 0 = 70$	$80 + 0 = 80$

*) Die Schüler lesen so vor: 10 Einer = 1 Zehner und 0 Einer;
 11 Einer = 1 Zehner und 1 Einer; u. s. w.

**) Die Schüler lesen so vor: 1 Zehner und 9 Einer sind 19 Einer;
 1 Zehner und 8 Einer sind 18 Einer; u. s. w.

II.

1) Lies und zerlege:*)

16, 25, 42, 12, 34,
57, 84, 69, 27, 78,
14, 31, 85, 49, 60,
23, 39, 80, 51, 74,
100, 44, 71, 93, 37.

2) Lies und zerlege:

25, 52; 16, 61; 28, 82;
13, 31; 47, 74; 59, 95;
26, 62; 18, 81; 23, 32;
34, 43; 54, 45; 83, 38;
36, 63; 87, 78; 67, 76;

Wie heißen folgende Zahlen? Schreibe sie auf!

3) 1	3. + 3	€. =	4) 5	3. + 1	€. =	5) 7	3. + 0	€. =
7	3. + 3	€. =	0	3. + 7	€. =	0	3. + 8	€. =
3	3. + 0	€. =	4	3. + 4	€. =	1	3. + 4	€. =
5	3. + 7	€. =	9	3. + 0	€. =	8	3. + 8	€. =
4	3. + 2	€. =	1	3. + 8	€. =	6	3. + 0	€. =
3	3. + 9	€. =	5	3. + 9	€. =	3	3. + 4	€. =
6	3. + 4	€. =	2	3. + 3	€. =	4	3. + 3	€. =
2	3. + 8	€. =	10	3. + 0	€. =	9	3. + 9	€. =
0	3. + 6	€. =	1	3. + 5	€. =	1	3. + 2	€. =
6	3. + 0	€. =	5	3. + 1	€. =	2	3. + 1	€. =

III.

Schreibe unter einander alle Zahlen:

1) von 15 bis 37;	2) von 25 bis 1;	3) von 80 bis 69;
von 34 bis 52;	von 42 bis 27;	von 25 bis 50;
von 48 bis 73;	von 54 bis 38;	von 91 bis 78;
von 67 bis 92;	von 61 bis 48;	von 57 bis 82;
von 84 bis 100.	von 72 bis 57.	von 100 bis 1.

Zweite Übung.

Zusammenzählen oder Addieren.

I.

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

*) Die Schüler schreiben auf: $16 = 10 + 6$; (darunter) $25 = 20 + 5$
u. s. w. und lesen alsdann vor: 16 €. sind 1 Zhr. und 6 €.; 25 €. sind 2
Zhr. und 5 €. u. s. w.

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

II.

1) $10 + 5 =$	2) $40 + 3 =$	3) $10 + 9 =$	4) $20 + 7 =$
$30 + 4 =$	$60 + 9 =$	$90 + 1 =$	$70 + 2 =$
$20 + 6 =$	$90 + 6 =$	$30 + 6 =$	$40 + 8 =$
$50 + 1 =$	$20 + 8 =$	$60 + 3 =$	$80 + 4 =$
$70 + 7 =$	$80 + 2 =$	$50 + 7 =$	$60 + 6 =$

5) $10 + 2 + 3 =$	6) $20 + 6 + 2 =$	7) $30 + 7 + 2 =$
$20 + 5 + 3 =$	$60 + 5 + 4 =$	$70 + 4 + 4 =$
$30 + 3 + 3 =$	$80 + 2 + 5 =$	$90 + 1 + 6 =$
$60 + 3 + 5 =$	$40 + 3 + 6 =$	$50 + 4 + 2 =$
$40 + 2 + 7 =$	$10 + 5 + 3 =$	$20 + 2 + 5 =$
$10 + 8 + 1 =$	$50 + 2 + 7 =$	$60 + 2 + 6 =$
$50 + 3 + 5 =$	$70 + 1 + 5 =$	$80 + 3 + 4 =$
$70 + 4 + 4 =$	$30 + 7 + 2 =$	$40 + 4 + 5 =$
$90 + 2 + 4 =$	$90 + 1 + 4 =$	$10 + 7 + 1 =$
$30 + 6 + 1 =$	$10 + 5 + 4 =$	$20 + 3 + 5 =$

Ex. 101. univ. Teil.

III.

1) $13 + 4 =$	2) $95 + 3 =$	3) $83 + 2 =$	4) $3 + 12 =$
$22 + 6 =$	$86 + 2 =$	$94 + 4 =$	$4 + 23 =$
$41 + 5 =$	$73 + 5 =$	$75 + 4 =$	$2 + 17 =$
$14 + 5 =$	$61 + 7 =$	$41 + 7 =$	$5 + 32 =$
$27 + 2 =$	$53 + 4 =$	$26 + 3 =$	$6 + 43 =$
$52 + 3 =$	$26 + 3 =$	$32 + 7 =$	$4 + 52 =$
$33 + 6 =$	$12 + 6 =$	$11 + 5 =$	$7 + 91 =$
$25 + 4 =$	$72 + 5 =$	$62 + 6 =$	$5 + 64 =$

5) $18 + 2 =$	6) $15 + 2 + 3 =$	7) $92 + 2 + 6 =$
$25 + 5 =$	$21 + 3 + 6 =$	$34 + 3 + 3 =$
$33 + 7 =$	$44 + 2 + 4 =$	$76 + 1 + 3 =$
$52 + 8 =$	$72 + 1 + 7 =$	$81 + 3 + 6 =$
$44 + 6 =$	$83 + 4 + 3 =$	$20 + 3 + 7 =$
$81 + 9 =$	$61 + 2 + 7 =$	$42 + 5 + 3 =$
$76 + 4 =$	$43 + 6 + 1 =$	$51 + 2 + 7 =$
$97 + 3 =$	$50 + 2 + 8 =$	$93 + 2 + 5 =$

8) $19 + 5 =$	9) $27 + 7 =$	10) $85 + 6 =$	11) $33 + 8 =$
$38 + 7 =$	$46 + 8 =$	$34 + 9 =$	$12 + 9 =$
$59 + 8 =$	$67 + 5 =$	$65 + 7 =$	$76 + 7 =$
$48 + 9 =$	$36 + 9 =$	$74 + 8 =$	$53 + 9 =$
$29 + 7 =$	$87 + 6 =$	$25 + 9 =$	$64 + 8 =$
$68 + 4 =$	$16 + 8 =$	$44 + 7 =$	$48 + 7 =$
$79 + 9 =$	$57 + 5 =$	$75 + 8 =$	$42 + 9 =$
$88 + 7 =$	$76 + 8 =$	$14 + 6 =$	$27 + 8 =$

12) $23 + 4 + 5 =$	13) $17 + 8 + 7 =$	14) $36 + 5 + 9 =$
$36 + 7 + 4 =$	$28 + 3 + 5 =$	$42 + 7 + 8 =$
$48 + 9 + 7 =$	$46 + 7 + 9 =$	$83 + 9 + 6 =$
$51 + 3 + 4 =$	$35 + 8 + 7 =$	$55 + 7 + 9 =$
$37 + 9 + 8 =$	$64 + 5 + 9 =$	$76 + 7 + 6 =$
$86 + 2 + 7 =$	$53 + 7 + 4 =$	$24 + 5 + 9 =$
$15 + 4 + 9 =$	$82 + 7 + 5 =$	$74 + 8 + 5 =$
$27 + 3 + 8 =$	$91 + 5 + 4 =$	$31 + 7 + 8 =$
$55 + 8 + 7 =$	$29 + 7 + 6 =$	$64 + 9 + 7 =$
$72 + 4 + 5 =$	$48 + 8 + 8 =$	$85 + 7 + 8 =$

IV. *)

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

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

*) Der Lehrer kann bei Nr. 1—4 auch die senkrechten Reihen jedes Abzuges zusammenzählen lassen.

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

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

5) $26 + 5 + 8 + 3 + 7 =$
 $35 + 8 + 9 + 6 + 5 =$
 $18 + 7 + 5 + 9 + 8 =$
 $47 + 9 + 6 + 3 + 7 =$

6) $17 + 7 + 4 + 5 + 9 =$
 $43 + 4 + 8 + 9 + 6 =$
 $52 + 3 + 9 + 8 + 7 =$
 $66 + 9 + 4 + 5 + 8 =$

7) $36 + 6 + 7 + 8 + 9 =$
 $44 + 3 + 7 + 4 + 6 =$
 $72 + 6 + 7 + 5 + 4 =$
 $80 + 7 + 4 + 4 + 5 =$

8) $48 + 6 + 9 + 4 + 1 =$
 $37 + 9 + 4 + 6 + 6 =$
 $55 + 8 + 5 + 7 + 5 =$
 $26 + 3 + 7 + 8 + 7 =$

9) $18 + 8 + 6 + 9 + 3 =$
 $27 + 7 + 4 + 8 + 9 =$
 $35 + 9 + 8 + 6 + 7 =$
 $42 + 4 + 8 + 9 + 5 =$

10) $68 + 5 + 9 + 7 + 4 =$
 $53 + 8 + 5 + 9 + 7 =$
 $46 + 7 + 3 + 6 + 4 =$
 $37 + 9 + 7 + 4 + 5 =$

V.

1) <u>6</u>	2) <u>8</u>	3) <u>5</u>	4) <u>6</u>	5) <u>4</u>	6) <u>7</u>	7) <u>3</u>	8) <u>9</u>
3	9	2	7	7	9	7	5
5	6	7	8	9	6	4	7
4	9	4	6	5	3	6	8
7	8	6	4	8	5	8	6

9) <u>2</u>	10) <u>7</u>	11) <u>8</u>	12) <u>5</u>	13) <u>9</u>	14) <u>5</u>	15) <u>9</u>	16) <u>8</u>
4	6	6	3	8	7	3	5
5	8	8	6	7	6	6	9
7	9	7	7	6	8	8	6
9	5	5	8	5	4	5	7
6	2	5	9	6	3	7	7
8	7	6	5	9	7	3	5

17) 23	18) 36	19) 47	20) 55	21) 28	22) 65
4	9	9	7	6	9
7	8	5	8	4	7
8	5	8	3	7	8
<u>3</u>	<u>4</u>	<u>4</u>	<u>9</u>	<u>5</u>	<u>3</u>

VI.*)

1) $2 + 2 = 4$	2) $3 + 3 = 6$	3) $4 + 4 = 8$
$4 + 2 = 6$	$6 + 3 = 9$	$8 + 4 = 12$
$6 + 2 = 8$	$9 + 3 = 12$	$12 + 4 = 16$
bis	bis	bis
$98 + 2 = 100$	$96 + 3 = 99$	$96 + 4 = 100$

4) $5 + 5 = 10$	5) $6 + 6 = 12$	6) $7 + 7 = 14$
$10 + 5 = 15$	$12 + 6 = 18$	$14 + 7 = 21$
bis	bis	bis
$95 + 5 = 100$	$90 + 6 = 96$	$91 + 7 = 98$

7) $8 + 8 = 16$	8) $9 + 9 = 18$	9) $10 + 10 = 20$
$16 + 8 = 24$	$18 + 9 = 27$	$20 + 10 = 30$
bis	bis	bis
$88 + 8 = 96$	$90 + 9 = 99$	$90 + 10 = 100$

VII.

1) $10 + 10 =$	2) $20 + 70 =$	3) $40 + 30 + 30 =$
$50 + 10 =$	$30 + 50 =$	$10 + 50 + 20 =$
$30 + 20 =$	$10 + 40 =$	$20 + 30 + 40 =$
$10 + 30 =$	$70 + 10 =$	$60 + 10 + 20 =$
$50 + 40 =$	$50 + 20 =$	$30 + 20 + 50 =$
$20 + 20 =$	$30 + 60 =$	$30 + 30 + 30 =$
$30 + 40 =$	$20 + 60 =$	$50 + 20 + 20 =$
$40 + 60 =$	$30 + 70 =$	$10 + 30 + 60 =$

4) $20 + 60 + 3 =$	5) $20 + 20 + 20 + 6 =$
$40 + 30 + 6 =$	$30 + 30 + 30 + 9 =$
$10 + 50 + 7 =$	$40 + 20 + 10 + 4 =$
$30 + 30 + 3 =$	$10 + 40 + 30 + 5 =$
$50 + 20 + 9 =$	$20 + 30 + 40 + 6 =$
$20 + 70 + 5 =$	$50 + 10 + 30 + 8 =$

*) Die hier aufgeführten Reihen sind die wichtigsten dieser Art; der Lehrer lasse aber auch noch andere bilden.

$$\begin{array}{llll}
 \mathbf{6)} & 10 + 15 = & \mathbf{7)} & 30 + 56 = \\
 & 20 + 14 = & & 20 + 73 = \\
 & 20 + 32 = & & 40 + 45 = \\
 & 30 + 36 = & & 10 + 78 = \\
 & 40 + 25 = & & 20 + 51 = \\
 & 60 + 17 = & & 50 + 39 =
 \end{array}
 \quad
 \begin{array}{llll}
 \mathbf{8)} & 14 + 10 = & \mathbf{9)} & 26 + 30 = \\
 & 25 + 10 = & & 18 + 80 = \\
 & 32 + 20 = & & 39 + 50 = \\
 & 16 + 20 = & & 47 + 30 = \\
 & 37 + 30 = & & 11 + 70 = \\
 & 21 + 30 = & & 55 + 30 =
 \end{array}$$

$$\begin{array}{ll}
 \mathbf{10)} & 20 + 37 + 2 = \\
 & 46 + 30 + 6 = \\
 & 30 + 52 + 8 = \\
 & 33 + 20 + 9 = \\
 & 60 + 25 + 8 = \\
 & 18 + 60 + 7 =
 \end{array}
 \quad
 \begin{array}{ll}
 \mathbf{11)} & 40 + 26 + 6 = \\
 & 27 + 60 + 9 = \\
 & 50 + 34 + 7 = \\
 & 11 + 50 + 5 = \\
 & 30 + 45 + 8 = \\
 & 27 + 50 + 9 =
 \end{array}$$

VIII.

$$\begin{array}{llll}
 \mathbf{1)} & 13 + 12 = & \mathbf{2)} & 53 + 16 = \\
 & 16 + 13 = & & 41 + 27 = \\
 & 14 + 12 = & & 64 + 23 = \\
 & 23 + 13 = & & 16 + 52 = \\
 & 32 + 22 = & & 72 + 13 = \\
 & 24 + 24 = & & 45 + 54 = \\
 & 36 + 22 = & & 22 + 66 = \\
 & 55 + 32 = & & 43 + 36 =
 \end{array}
 \quad
 \begin{array}{llll}
 \mathbf{3)} & 36 + 52 = & \mathbf{4)} & 52 + 36 = \\
 & 43 + 35 = & & 71 + 28 = \\
 & 53 + 35 = & & 51 + 26 = \\
 & 72 + 27 = & & 46 + 32 = \\
 & 34 + 55 = & & 53 + 45 = \\
 & 24 + 65 = & & 31 + 56 = \\
 & 16 + 63 = & & 22 + 37 = \\
 & 74 + 15 = & & 36 + 43 =
 \end{array}$$

$$\begin{array}{lll}
 \mathbf{5)} & 34 + 35 = & \mathbf{6)} & 23 + 23 = \\
 & 46 + 43 = & & 44 + 44 = \\
 & 27 + 32 = & & 14 + 23 = \\
 & 45 + 33 = & & 52 + 17 = \\
 & 21 + 28 = & & 46 + 32 = \\
 & 33 + 42 = & & 75 + 24 = \\
 & 52 + 36 = & & 64 + 13 = \\
 & 65 + 24 = & & 12 + 53 =
 \end{array}
 \quad
 \begin{array}{ll}
 \mathbf{7)} & 32 + 22 + 13 = \\
 & 43 + 32 + 11 = \\
 & 27 + 11 + 31 = \\
 & 22 + 33 + 44 = \\
 & 12 + 13 + 14 = \\
 & 36 + 40 + 12 = \\
 & 41 + 32 + 23 = \\
 & 24 + 60 + 14 =
 \end{array}$$

IX.

$$\begin{array}{llll}
 \mathbf{1)} & 26 + 14 = & \mathbf{2)} & 38 + 52 = \\
 & 28 + 12 = & & 15 + 45 = \\
 & 17 + 33 = & & 11 + 59 = \\
 & 16 + 44 = & & 25 + 65 = \\
 & 24 + 26 = & & 24 + 46 = \\
 & 13 + 67 = & & 27 + 23 = \\
 & 51 + 29 = & & 16 + 34 = \\
 & 47 + 23 = & & 13 + 47 =
 \end{array}
 \quad
 \begin{array}{llll}
 \mathbf{3)} & 59 + 31 = & \mathbf{4)} & 18 + 12 = \\
 & 31 + 49 = & & 22 + 38 = \\
 & 26 + 54 = & & 67 + 13 = \\
 & 32 + 68 = & & 14 + 56 = \\
 & 81 + 19 = & & 37 + 43 = \\
 & 83 + 17 = & & 42 + 58 = \\
 & 66 + 24 = & & 76 + 14 = \\
 & 21 + 59 = & & 58 + 22 =
 \end{array}$$

$$\begin{array}{llll}
 \mathbf{5)} & 18 + 17 = & \mathbf{6)} & 29 + 16 = \\
 & 38 + 17 = & & 37 + 38 = \\
 & 37 + 25 = & & 46 + 26 = \\
 & 19 + 27 = & & 28 + 38 = \\
 & 78 + 15 = & & 34 + 49 = \\
 & 49 + 16 = & & 46 + 46 = \\
 & 49 + 37 = & & 35 + 47 = \\
 & 46 + 35 = & & 26 + 56 = \\
 & 33 + 29 = & & 23 + 39 =
 \end{array}$$

$$\begin{array}{ll}
 \mathbf{7)} & 34 + 37 = \\
 & 25 + 26 = \\
 & 38 + 24 = \\
 & 27 + 27 = \\
 & 36 + 36 = \\
 & 55 + 28 = \\
 & 27 + 29 = \\
 & 19 + 55 = \\
 & 18 + 66 = \\
 \mathbf{8)} & 45 + 28 = \\
 & 43 + 29 = \\
 & 39 + 17 = \\
 & 57 + 19 = \\
 & 56 + 18 = \\
 & 48 + 14 = \\
 & 67 + 19 = \\
 & 58 + 18 = \\
 & 39 + 38 =
 \end{array}$$

- 9)** $12 + 13 + 14 =$ **10)** $26 + 37 + (3 \times 3) =$
 $15 + 26 + 37 =$ $38 + 46 + (2 \times 4) =$
 $18 + 18 + 18 =$ $25 + 36 + (5 \times 2) =$
 $24 + 24 + 24 =$ $39 + 55 + (2 \times 3) =$
 $27 + 38 + 19 =$ $47 + 47 + (2 \times 2) =$
 $39 + 15 + 28 =$ $18 + 19 + (4 \times 2) =$
- 11)** Zähle 37 zu a) 18; b) 24; c) 35; d) 41; e) 57; f) 63; g) 17; h) 38; i) 29; k) 47!
12) Welche Zahl ist um 25 größer als a) 18; b) 27; c) 36; d) 44; e) 16; f) 64; g) 55; h) 29; i) 74; k) 38?

X.

1) 31 13 <u>22</u>	2) 12 32 <u>13</u>	3) 11 42 <u>34</u>	4) 24 42 <u>33</u>	5) 26 31 <u>12</u>	6) 53 21 <u>12</u>
7) 34 22 <u>14</u>	8) 46 34 <u>10</u>	9) 57 22 <u>11</u>	10) 22 27 <u>21</u>	11) 33 43 <u>14</u>	12) 45 20 <u>35</u>
13) 38 17 <u>20</u>	14) 46 25 <u>13</u>	15) 35 45 <u>12</u>	16) 27 39 <u>34</u>	17) 45 31 <u>19</u>	18) 29 16 <u>13</u>
19) 46 8 <u>12</u>	20) 35 7 <u>28</u>	21) 6 17 <u>38</u>	22) 9 25 <u>37</u>	23) 36 47 <u>4</u>	24) 29 46 <u>5</u>

Dritte Übung.

Abziehen oder Subtrahiren.

I.

1) $11 - 1 =$	2) $12 - 2 =$	3) $13 - 3 =$	4) $14 - 5 =$
$11 - 5 =$	$12 - 4 =$	$13 - 5 =$	$14 - 8 =$
$11 - 9 =$	$12 - 8 =$	$13 - 7 =$	$14 - 6 =$
$11 - 4 =$	$12 - 5 =$	$13 - 4 =$	$14 - 9 =$
$11 - 8 =$	$12 - 7 =$	$13 - 8 =$	$14 - 7 =$
$11 - 6 =$	$12 - 9 =$	$13 - 6 =$	$14 - 2 =$

5) $15 - 7 =$	6) $16 - 7 =$	7) $17 - 7 =$	8) $18 - 9 =$
$15 - 9 =$	$16 - 9 =$	$17 - 9 =$	$18 - 3 =$
$15 - 6 =$	$16 - 8 =$	$17 - 2 =$	$18 - 7 =$
$15 - 8 =$	$16 - 3 =$	$17 - 8 =$	$18 - 4 =$
$15 - 2 =$	$16 - 5 =$	$17 - 5 =$	$18 - 2 =$
$15 - 4 =$	$16 - 2 =$	$17 - 4 =$	$18 - 6 =$

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

II.

- 1)** Nimm 2 weg von: 25, 47, 53, 38, 94, 76, 35, 87, 45, 59.
2) Nimm 3 weg von: 16, 37, 28, 44, 83, 59, 66, 25, 74, 99.
3) Nimm 4 weg von: 56, 85, 74, 37, 29, 35, 28, 98, 66, 47.
4) Nimm 5 weg von: 95, 67, 79, 87, 38, 26, 48, 59, 86, 19.
5) Nimm 6 weg von: 87, 58, 99, 48, 26, 57, 39, 66, 89, 18.

6) $28 - 6 =$	7) $47 - 5 =$	8) $66 - 4 =$	9) $88 - 2 =$
$36 - 4 =$	$48 - 4 =$	$37 - 6 =$	$67 - 5 =$
$49 - 2 =$	$46 - 6 =$	$49 - 7 =$	$27 - 4 =$
$27 - 5 =$	$69 - 7 =$	$65 - 4 =$	$39 - 7 =$
$68 - 3 =$	$78 - 3 =$	$79 - 8 =$	$57 - 3 =$
$35 - 4 =$	$59 - 8 =$	$87 - 3 =$	$69 - 8 =$
$28 - 7 =$	$58 - 5 =$	$98 - 6 =$	$73 - 2 =$
$25 - 2 =$	$39 - 7 =$	$99 - 5 =$	$96 - 5 =$

III.

- 1) Von 20 ziehe ab: 1, 5, 8, 3, 9, 4, 6, 7, 2.
 2) Von 40 ziehe ab: 3, 1, 5, 6, 8, 4, 2, 7, 9.
 3) Von 60 ziehe ab: 4, 5, 9, 7, 8, 6, 3, 1, 2.
 4) Von 80 ziehe ab: 5, 6, 8, 3, 1, 9, 2, 7, 4.
 5) Von 100 ziehe ab: 6, 4, 1, 9, 2, 5, 3, 8, 7.

6) 30 — 6 = 50 — 9 = 70 — 8 = 90 — 2 = 40 — 7 = 80 — 3 =	7) 30 — 9 = 50 — 7 = 40 — 3 = 80 — 7 = 20 — 8 = 100 — 6 =	8) 50 — 1 = 80 — 7 = 30 — 5 = 90 — 9 = 70 — 6 = 60 — 8 =
--	---	--

IV.

1) 21 — 2 = 34 — 5 = 52 — 4 = 76 — 8 = 44 — 6 = 62 — 7 =	2) 32 — 3 = 13 — 6 = 52 — 5 = 72 — 4 = 95 — 8 = 46 — 9 =	3) 24 — 7 = 43 — 6 = 94 — 8 = 35 — 9 = 73 — 6 = 14 — 8 =	4) 32 — 6 = 64 — 8 = 51 — 5 = 93 — 7 = 45 — 9 = 16 — 8 =
--	--	--	--

5) Nimm 6 weg von: 35, 24, 45, 83, 64, 52, 33, 91, 13.

6) Nimm 7 weg von: 26, 34, 65, 43, 51, 76, 92, 83, 22.

7) Nimm 8 weg von: 37, 46, 25, 51, 63, 22, 74, 92, 33.

8) Nimm 9 weg von: 27, 35, 98, 46, 53, 71, 84, 62, 55.

9) 63 — 5 = 21 — 6 = 33 — 7 = 46 — 9 = 21 — 8 = 34 — 9 =	10) 44 — 8 = 75 — 8 = 91 — 2 = 96 — 7 = 53 — 8 = 82 — 9 =	11) 32 — 9 = 64 — 5 = 52 — 8 = 41 — 7 = 62 — 9 = 83 — 6 =	12) 42 — 8 = 61 — 7 = 58 — 9 = 51 — 6 = 73 — 8 = 94 — 9 =
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13) 21 = 4 + ? **14)** 42 = 6 + ? **15)** 36 = 9 + ?

32 = 4 + ? 65 = 8 + ? 52 = 8 + ?

43 = 6 + ? 33 = 5 + ? 81 = 7 + ?

53 = 8 + ? 72 = 7 + ? 63 = 9 + ?

24 = 8 + ? 91 = 5 + ? 41 = 8 + ?

55 = 7 + ? 22 = 9 + ? 44 = 9 + ?

V.*)

1) $100 - 2 = 98$	2) $99 - 3 = 96$	3) $100 - 4 = 96$
$98 - 2 = 96$	$96 - 3 = 93$	$96 - 4 = 92$
bis	bis	bis
$2 - 2 = 0$	$3 - 3 = 0$	$4 - 4 = 0$

4) $100 - 5 = 95$	5) $96 - 6 = 90$	6) $98 - 7 = 91$
$95 - 5 = 90$	$90 - 6 = 84$	$91 - 7 = 84$
u. f. w.	u. f. w.	u. f. w.

7) $96 - 8 = 88$	8) $99 - 9 = 90$	9) $100 - 10 = 90$
$88 - 8 = 80$	$90 - 9 = 81$	$90 - 10 = 80$
u. f. w.	u. f. w.	u. f. w.

VI.

1) $30 - 10 =$	2) $100 - 30 =$	3) $100 - 20 - 10 =$
$60 - 20 =$	$70 - 50 =$	$70 - 30 - 20 =$
$50 - 40 =$	$80 - 30 =$	$90 - 40 - 40 =$
$60 - 30 =$	$60 - 40 =$	$60 - 20 - 30 =$
$90 - 20 =$	$30 - 10 =$	$80 - 50 - 30 =$
$40 - 30 =$	$50 - 30 =$	$90 - 30 - 50 =$
$20 - 10 =$	$90 - 60 =$	$70 - 40 - 10 =$
$100 - 60 =$	$100 - 10 =$	$100 - 50 - 30 =$

4) Von 61 ziehe ab: 10, 30, 50, 20, 40, 60.

5) Von 97 ziehe ab: 30, 10, 50, 80, 20, 60, 90, 40.

6) Von 83 ziehe ab: 20, 60, 10, 50, 80, 30, 70, 40.

7) $25 - 10 =$	8) $79 - 50 =$	9) $87 - 50 =$	10) $97 - 60 =$
$47 - 30 =$	$83 - 40 =$	$93 - 80 =$	$72 - 60 =$
$52 - 20 =$	$68 - 30 =$	$36 - 20 =$	$81 - 30 =$
$69 - 40 =$	$55 - 30 =$	$75 - 40 =$	$64 - 60 =$
$51 - 50 =$	$32 - 10 =$	$62 - 50 =$	$86 - 30 =$

VII.

1) $34 - 14 =$	2) $79 - 39 =$	3) $87 - 57 =$	4) $46 - 26 =$
$55 - 25 =$	$81 - 51 =$	$59 - 29 =$	$88 - 68 =$
$67 - 37 =$	$93 - 63 =$	$72 - 62 =$	$91 - 51 =$
$28 - 18 =$	$65 - 45 =$	$94 - 74 =$	$83 - 53 =$

*) Die hier aufgeführten Reihen sind die wichtigsten dieser Art; der Lehrer lasse aber auch noch andere bilden.

5) 44 — 22 =	6) 88 — 63 =	7) 39 — 16 =	8) 98 — 36 =
67 — 33 =	66 — 23 =	78 — 45 =	95 — 53 =
58 — 11 =	55 — 34 =	46 — 32 =	78 — 26 =
87 — 44 =	99 — 45 =	98 — 67 =	56 — 35 =
96 — 55 =	26 — 13 =	56 — 22 =	88 — 27 =
77 — 22 =	45 — 24 =	89 — 54 =	93 — 51 =
59 — 33 =	68 — 45 =	65 — 23 =	87 — 46 =
68 — 44 =	97 — 56 =	78 — 46 =	96 — 63 =

9) 37 = 21 + ?	10) 46 = 23 + ?	11) 64 = 32 + ?
29 = 16 + ?	88 = 45 + ?	58 = 46 + ?
48 = 24 + ?	69 = 36 + ?	84 = 42 + ?
56 = 35 + ?	77 = 66 + ?	99 = 55 + ?

VIII.

- 1)** Von 70 nimm weg: 13, 33, 53, 44, 24, 66, 36, 56.
 - 2)** Von 80 nimm weg: 24, 36, 48, 69, 51, 73, 15, 64.
 - 3)** Von 90 nimm weg: 37, 59, 43, 65, 18, 72, 41, 88.
 - 4)** Von 100 nimm weg: 88, 83, 65, 54, 75, 25, 39, 93.
- | | | | |
|---------------------|---------------------|---------------------|---------------------|
| 5) 60 — 23 = | 6) 80 — 35 = | 7) 60 — 42 = | 8) 30 — 14 = |
| 90 — 64 = | 30 — 16 = | 50 — 39 = | 50 — 26 = |
| 50 — 27 = | 70 — 41 = | 80 — 46 = | 60 — 19 = |
| 40 — 18 = | 100 — 36 = | 100 — 57 = | 100 — 24 = |

IX.

- 1)** Von 61 nimm weg: 22, 42, 33, 53, 14, 44, 18, 15.
 - 2)** Von 72 nimm weg: 33, 24, 55, 16, 47, 68, 14, 25.
 - 3)** Von 83 nimm weg: 14, 66, 35, 27, 46, 58, 65, 29.
 - 4)** Von 94 nimm weg: 35, 47, 29, 56, 68, 85, 17, 79.
- | | | |
|---------------------|---------------------|---------------------|
| 5) 31 — 13 = | 6) 62 — 26 = | 7) 51 — 26 = |
| 42 — 24 = | 43 — 34 = | 73 — 48 = |
| 53 — 35 = | 71 — 17 = | 87 — 59 = |
| 74 — 46 = | 52 — 25 = | 52 — 38 = |
| 65 — 57 = | 93 — 36 = | 91 — 39 = |
| 96 — 68 = | 84 — 48 = | 65 — 48 = |
- | | | | |
|---------------------|---------------------|----------------------|----------------------|
| 8) 73 — 35 = | 9) 51 — 19 = | 10) 92 — 48 = | 11) 47 — 18 = |
| 68 — 29 = | 73 — 35 = | 52 — 23 = | 71 — 36 = |
| 48 — 19 = | 45 — 27 = | 73 — 26 = | 32 — 15 = |
| 85 — 37 = | 27 — 19 = | 81 — 35 = | 65 — 48 = |
| 61 — 19 = | 91 — 18 = | 93 — 27 = | 68 — 29 = |
| 31 — 17 = | 86 — 58 = | 72 — 36 = | 91 — 56 = |

12) $83 - 17 =$	13) $73 - 54 =$	14) $36 - 27 =$
$76 - 18 =$	$38 - 19 =$	$41 - 37 =$
$85 - 49 =$	$67 - 29 =$	$64 - 29 =$
$72 - 39 =$	$64 - 48 =$	$55 - 19 =$
$73 - 64 =$	$92 - 79 =$	$85 - 79 =$
$51 - 17 =$	$45 - 19 =$	$71 - 66 =$

X. *)

1) $83 = 60 + ?$	2) $52 = 22 + ?$	3) $56 = 24 + ?$
$47 = 10 + ?$	$76 = 36 + ?$	$38 = 17 + ?$
$59 = 30 + ?$	$84 = 24 + ?$	$89 = 32 + ?$
$91 = 50 + ?$	$35 = 15 + ?$	$47 = 33 + ?$
$74 = 20 + ?$	$91 = 31 + ?$	$78 = 25 + ?$
$62 = 10 + ?$	$63 = 43 + ?$	$85 = 61 + ?$

4) $50 = 25 + ?$	5) $32 = 16 + ?$	6) $34 = 16 + ?$
$70 = 28 + ?$	$44 = 28 + ?$	$78 = 38 + ?$
$60 = 32 + ?$	$56 = 39 + ?$	$57 = 26 + ?$
$90 = 45 + ?$	$61 = 45 + ?$	$84 = 59 + ?$
$40 = 17 + ?$	$73 = 48 + ?$	$70 = 46 + ?$
$100 = 69 + ?$	$92 = 29 + ?$	$62 = 28 + ?$

7) $42 = 40 + ?$	8) $51 = 48 + ?$	9) $62 = 59 + ?$
$65 = 62 + ?$	$32 = 29 + ?$	$58 = 55 + ?$
$79 = 76 + ?$	$85 = 82 + ?$	$83 = 79 + ?$
$22 = 19 + ?$	$71 = 68 + ?$	$31 = 28 + ?$
$38 = 34 + ?$	$43 = 39 + ?$	$82 = 78 + ?$
$41 = 39 + ?$	$91 = 89 + ?$	$33 = 29 + ?$

XI.

1) $12 + 27 - 5 =$	2) $27 + 30 - 8 =$	3) $16 + 14 - 4 =$
$33 + 54 - 6 =$	$35 + 20 - 7 =$	$23 + 37 - 8 =$
$41 + 26 - 4 =$	$40 + 31 - 5 =$	$15 + 25 - 9 =$
$53 + 36 - 7 =$	$60 + 12 - 6 =$	$31 + 49 - 6 =$
$22 + 47 - 8 =$	$53 + 20 - 9 =$	$28 + 32 - 7 =$

*) Bei den Aufgaben unter Nr. 7—9 findet man das Resultat am bequemsten durch Hinaufzählen von der kleineren zur größeren Zahl.

$$\begin{array}{lll}
 \mathbf{4)} & 25 + 40 - 30 = & \mathbf{5)} & 70 - 30 + 60 = & \mathbf{6)} & 78 + 18 - 43 = \\
 & 37 + 30 - 8 = & & 32 - 23 + 40 = & & 59 + 32 - 54 = \\
 & 48 + 10 - 12 = & & 54 - 36 + 9 = & & 55 + 26 - 63 = \\
 & 24 + 26 - 25 = & & 45 - 10 + 37 = & & 44 + 18 - 44 = \\
 & 34 + 34 - 35 = & & 72 - 36 + 36 = & & 60 + 32 - 29 = \\
 & 45 + 25 - 26 = & & 98 - 45 + 18 = & & 9 + 48 - 30 = \\
 & 56 + 16 - 18 = & & 60 - 33 + 25 = & & 17 + 34 - 26 = \\
 & 67 + 21 - 32 = & & 100 - 75 + 25 = & & 25 + 19 - 27 = \\
 & 32 + 48 - 16 = & & 55 - 18 + 36 = & & 47 + 36 - 52 =
 \end{array}$$

XII.

$$\begin{array}{llllll}
 \mathbf{1)} & 48 & \mathbf{2)} & 60 & \mathbf{3)} & 59 & \mathbf{4)} & 40 & \mathbf{5)} & 31 & \mathbf{6)} & 52 \\
 & \underline{-6} & & \underline{-8} & & \underline{-7} & & \underline{-5} & & \underline{-6} & & \underline{-7} \\
 \\
 \mathbf{7)} & 50 & \mathbf{8)} & 46 & \mathbf{9)} & 73 & \mathbf{10)} & 88 & \mathbf{11)} & 97 & \mathbf{12)} & 83 \\
 & \underline{20} & & \underline{30} & & \underline{43} & & \underline{53} & & \underline{64} & & \underline{60} \\
 \\
 \mathbf{13)} & 93 & \mathbf{14)} & 72 & \mathbf{15)} & 38 & \mathbf{16)} & 70 & \mathbf{17)} & 94 & \mathbf{18)} & 62 \\
 & \underline{16} & & \underline{59} & & \underline{29} & & \underline{43} & & \underline{64} & & \underline{38} \\
 \\
 \mathbf{19)} & 33 & \mathbf{20)} & 47 & \mathbf{21)} & 50 & \mathbf{22)} & 83 & \mathbf{23)} & 59 & \mathbf{24)} & 100 \\
 & \underline{17} & & \underline{9} & & \underline{27} & & \underline{36} & & \underline{32} & & \underline{49} \\
 \\
 \mathbf{25)} & 68 & \mathbf{26)} & 67 & \mathbf{27)} & 23 & \mathbf{28)} & 70 & \mathbf{29)} & 74 & \mathbf{30)} & 51 \\
 & \underline{49} & & \underline{15} & & \underline{8} & & \underline{25} & & \underline{50} & & \underline{37}
 \end{array}$$

Vierte Übung.

Bervielfältigen oder Multiplizieren.

I.

$$\begin{array}{llll}
 \mathbf{1)} & 1 \times 2 = & \mathbf{2)} & 9 \times 2 = \\
 & 5 \times 2 = & & 4 \times 2 = \\
 & 3 \times 2 = & & 8 \times 2 = \\
 & 7 \times 2 = & & 6 \times 2 = \\
 & 2 \times 2 = & & 10 \times 2 = \\
 \\
 \mathbf{3)} & 1 \times 3 = & \mathbf{4)} & 10 \times 3 = \\
 & 3 \times 3 = & & 8 \times 3 = \\
 & 5 \times 3 = & & 4 \times 3 = \\
 & 2 \times 3 = & & 9 \times 3 = \\
 & 6 \times 3 = & & 7 \times 3 = \\
 \\
 \mathbf{5)} & 4 = 2 \times & \mathbf{6)} & 8 = 4 \times & \mathbf{7)} & 24 = 8 \times & \mathbf{8)} & 21 = 7 \times \\
 & 6 = 3 \times & & 3 = 1 \times & & 16 = 8 \times & & 12 = 4 \times \\
 & 9 = 3 \times & & 14 = 7 \times & & 30 = 10 \times & & 12 = 6 \times \\
 & 15 = 5 \times & & 2 = 1 \times & & 10 = 5 \times & & 27 = 9 \times \\
 & 20 = 10 \times & & 6 = 2 \times & & 18 = 6 \times & & 18 = 9 \times
 \end{array}$$

II.

1) $1 \times 4 =$	2) $5 \times 3 =$	3) $9 \times 2 =$	4) $12 = 3 \times$
$3 \times 4 =$	$4 \times 2 =$	$4 \times 4 =$	$30 = 10 \times$
$5 \times 4 =$	$5 \times 4 =$	$3 \times 2 =$	$10 = 5 \times$
$2 \times 4 =$	$7 \times 3 =$	$6 \times 3 =$	$9 = 3 \times$
$7 \times 4 =$	$10 \times 4 =$	$8 \times 4 =$	$8 = 2 \times$
$9 \times 4 =$	$9 \times 3 =$	$2 \times 2 =$	$27 = 9 \times$
$6 \times 4 =$	$7 \times 2 =$	$6 \times 4 =$	$20 = 5 \times$
$8 \times 4 =$	$8 \times 3 =$	$4 \times 3 =$	$18 = 9 \times$
$4 \times 4 =$	$7 \times 4 =$	$8 \times 2 =$	$18 = 6 \times$
$10 \times 4 =$	$6 \times 2 =$	$9 \times 4 =$	$21 = 7 \times$

5) $1 \times 5 =$	6) $8 \times 3 =$	7) $8 \times 5 =$	8) $24 = 8 \times$
$3 \times 5 =$	$7 \times 5 =$	$9 \times 4 =$	$28 = 7 \times$
$8 \times 5 =$	$5 \times 4 =$	$4 \times 3 =$	$30 = 6 \times$
$6 \times 5 =$	$7 \times 4 =$	$3 \times 4 =$	$32 = 8 \times$
$5 \times 5 =$	$9 \times 2 =$	$5 \times 5 =$	$12 = 4 \times$
$7 \times 5 =$	$5 \times 3 =$	$8 \times 4 =$	$15 = 3 \times$
$2 \times 5 =$	$9 \times 5 =$	$7 \times 2 =$	$45 = 9 \times$
$9 \times 5 =$	$2 \times 3 =$	$4 \times 5 =$	$36 = 9 \times$
$4 \times 5 =$	$6 \times 5 =$	$6 \times 4 =$	$25 = 5 \times$
$10 \times 5 =$	$4 \times 4 =$	$3 \times 5 =$	$40 = 10 \times$

- 9)** Schreibe die Zweierzahlen bis 20 auf; vor- und rückwärts.
10) Schreibe die Dreierzahlen bis 30 auf; vor- und rückwärts.
11) Schreibe die Viererzahlen bis 40 auf; vor- und rückwärts.
12) Schreibe die Fünferzahlen bis 50 auf; vor- und rückwärts.

III.

1) $1 \times 6 =$	2) $9 \times 3 =$	3) $6 \times 6 =$	4) $18 = 3 \times$
$4 \times 6 =$	$6 \times 2 =$	$3 \times 5 =$	$10 = 2 \times$
$2 \times 6 =$	$10 \times 5 =$	$2 \times 4 =$	$12 = 6 \times$
$7 \times 6 =$	$7 \times 3 =$	$7 \times 3 =$	$12 = 3 \times$
$3 \times 6 =$	$8 \times 6 =$	$9 \times 4 =$	$30 = 5 \times$
$8 \times 6 =$	$4 \times 5 =$	$8 \times 5 =$	$40 = 8 \times$
$6 \times 6 =$	$6 \times 4 =$	$4 \times 6 =$	$16 = 4 \times$
$9 \times 6 =$	$9 \times 6 =$	$6 \times 3 =$	$42 = 7 \times$
$5 \times 6 =$	$7 \times 2 =$	$7 \times 5 =$	$24 = 6 \times$
$10 \times 6 =$	$5 \times 3 =$	$10 \times 2 =$	$24 = 8 \times$

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

9) $10 \times 3 =$	10) $9 \times 6 =$	11) $35 = 5 \times$	12) $21 = 3 \times$
$2 \times 6 =$	$3 \times 3 =$	$36 = 6 \times$	$12 = 2 \times$
$6 \times 7 =$	$6 \times 5 =$	$20 = 4 \times$	$16 = 8 \times$
$7 \times 5 =$	$3 \times 2 =$	$15 = 5 \times$	$56 = 8 \times$
$3 \times 4 =$	$4 \times 6 =$	$49 = 7 \times$	$24 = 4 \times$
$8 \times 7 =$	$9 \times 7 =$	$48 = 8 \times$	$54 = 9 \times$
$9 \times 3 =$	$6 \times 6 =$	$14 = 2 \times$	$14 = 7 \times$
$3 \times 6 =$	$5 \times 4 =$	$8 = 4 \times$	$28 = 4 \times$
$2 \times 4 =$	$3 \times 5 =$	$35 = 7 \times$	$63 = 9 \times$
$3 \times 7 =$	$4 \times 7 =$	$60 = 10 \times$	$6 = 3 \times$

13) Schreibe die Sechszahlen bis 60 auf; vor- und rückwärts.

14) Schreibe die Siebenzahlen bis 70 auf; vor- und rückwärts.

IV.

1) $1 \times 8 =$	2) $5 \times 7 =$	3) $4 \times 8 =$	4) $56 = 7 \times$
$5 \times 8 =$	$8 \times 3 =$	$4 \times 7 =$	$24 = 3 \times$
$3 \times 8 =$	$5 \times 2 =$	$8 \times 8 =$	$24 = 6 \times$
$8 \times 8 =$	$7 \times 7 =$	$4 \times 3 =$	$18 = 6 \times$
$2 \times 8 =$	$8 \times 5 =$	$8 \times 4 =$	$16 = 2 \times$
$7 \times 8 =$	$7 \times 4 =$	$9 \times 8 =$	$48 = 8 \times$
$9 \times 8 =$	$3 \times 7 =$	$3 \times 6 =$	$25 = 5 \times$
$6 \times 8 =$	$4 \times 4 =$	$5 \times 8 =$	$24 = 6 \times$
$4 \times 8 =$	$5 \times 6 =$	$3 \times 4 =$	$40 = 5 \times$
$10 \times 8 =$	$6 \times 8 =$	$7 \times 8 =$	$36 = 6 \times$

5) $1 \times 9 =$	6) $3 \times 8 =$	7) $5 \times 5 =$	8) $32 = 4 \times$
$3 \times 9 =$	$9 \times 8 =$	$2 \times 8 =$	$81 = 9 \times$
$5 \times 9 =$	$2 \times 7 =$	$8 \times 9 =$	$14 = 7 \times$
$7 \times 9 =$	$9 \times 5 =$	$2 \times 6 =$	$42 = 6 \times$
$9 \times 9 =$	$3 \times 9 =$	$5 \times 9 =$	$36 = 4 \times$
$2 \times 9 =$	$6 \times 8 =$	$8 \times 8 =$	$80 = 10 \times$
$4 \times 9 =$	$5 \times 7 =$	$7 \times 6 =$	$20 = 5 \times$
$6 \times 9 =$	$4 \times 9 =$	$3 \times 7 =$	$27 = 3 \times$
$8 \times 9 =$	$7 \times 8 =$	$7 \times 9 =$	$42 = 7 \times$
$10 \times 9 =$	$6 \times 9 =$	$6 \times 3 =$	$18 = 2 \times$

9) Schreibe die Achterzahlen bis 80 auf; vor- und rückwärts.

10) Schreibe die Neunerzahlen bis 90 auf; vor- und rückwärts.

V.

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

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

VI.

1) Nimm 2 mal: 3, 6, 9, 2, 4, 8, 1, 5, 10, 7.

2) Nimm 4 mal: 2, 4, 8, 10, 3, 5, 7, 9, 6, 1.

3) Nimm 6 mal: 1, 3, 2, 4, 5, 7, 6, 9, 10, 8.

4) Nimm 3 mal: 3, 7, 2, 6, 1, 10, 4, 8, 5, 9.

5) Nimm 5 mal: 10, 5, 1, 8, 4, 2, 9, 6, 3, 7.

6) Nimm 7 mal: 2, 4, 1, 3, 5, 10, 6, 9, 8, 7.

7) Nimm 9 mal: 1, 3, 2, 4, 5, 7, 6, 9, 10, 8.

8) Nimm 8 mal: 3, 6, 9, 2, 4, 8, 1, 5, 10, 7.

9) $6 = 2 \times$	10) $30 = 6 \times$	11) $80 = 8 \times$	12) $36 = 4 \times$
$72 = 8 \times$	$12 = 3 \times$	$27 = 3 \times$	$28 = 4 \times$
$56 = 7 \times$	$54 = 6 \times$	$40 = 5 \times$	$16 = 4 \times$
$35 = 5 \times$	$45 = 9 \times$	$36 = 6 \times$	$40 = 8 \times$
$18 = 3 \times$	$45 = 5 \times$	$81 = 9 \times$	$54 = 6 \times$
$25 = 5 \times$	$28 = 7 \times$	$42 = 6 \times$	$64 = 8 \times$
$63 = 7 \times$	$48 = 6 \times$	$72 = 8 \times$	$35 = 7 \times$
$64 = 8 \times$	$21 = 3 \times$	$32 = 4 \times$	$72 = 9 \times$
$54 = 9 \times$	$63 = 9 \times$	$56 = 8 \times$	$49 = 7 \times$

VII. *)

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

4) $27 + 23 =$	5) $36 + 47 =$	6) $5 \times 5 + 25 =$
$50 - 26 =$	$66 - 55 =$	$9 \times 7 - 20 =$
$38 + 19 =$	$23 + 77 =$	$5 \times 9 + 46 =$
$69 - 47 =$	$60 - 16 =$	$8 \times 5 - 14 =$
$16 + 26 =$	$19 + 39 =$	$4 \times 8 + 26 =$
$31 - 18 =$	$38 - 18 =$	$6 \times 9 - 44 =$
$45 + 33 =$	$24 + 66 =$	$8 \times 8 + 16 =$
$82 - 44 =$	$93 - 39 =$	$4 \times 7 - 26 =$

VIII.

1) $1 \times 20 =$	2) $4 \times 20 =$	3) $2 \times 50 =$	4) $20 \times 2 =$
$3 \times 20 =$	$3 \times 30 =$	$2 \times 20 =$	$30 \times 3 =$
$2 \times 30 =$	$1 \times 50 =$	$2 \times 40 =$	$20 \times 4 =$
$5 \times 20 =$	$6 \times 10 =$	$9 \times 10 =$	$50 \times 2 =$

*) Bei den Aufgaben Nr. 1, 2, 3 und 6 muß man zuerst multipliciren und alsdann, je nach Vorschrift, addiren oder subtrahiren.

5) $2 \times 11 =$	6) $4 \times 12 =$	7) $2 \times 15 =$	8) $6 \times 12 =$
$3 \times 12 =$	$2 \times 42 =$	$5 \times 12 =$	$3 \times 16 =$
$2 \times 22 =$	$3 \times 33 =$	$4 \times 15 =$	$5 \times 13 =$
$5 \times 11 =$	$2 \times 21 =$	$5 \times 16 =$	$8 \times 12 =$
$3 \times 22 =$	$2 \times 24 =$	$2 \times 35 =$	$3 \times 18 =$
$3 \times 13 =$	$3 \times 31 =$	$5 \times 18 =$	$3 \times 14 =$
$2 \times 32 =$	$2 \times 44 =$	$4 \times 25 =$	$5 \times 15 =$

9) $3 \times 24 =$	10) $5 \times 18 =$	11) $3 \times 13 =$	12) $5 \times 17 =$
$6 \times 16 =$	$7 \times 12 =$	$4 \times 14 =$	$3 \times 23 =$
$2 \times 28 =$	$4 \times 16 =$	$5 \times 19 =$	$4 \times 18 =$
$4 \times 17 =$	$2 \times 29 =$	$2 \times 48 =$	$2 \times 36 =$
$6 \times 13 =$	$6 \times 14 =$	$3 \times 15 =$	$7 \times 13 =$
$2 \times 45 =$	$2 \times 38 =$	$3 \times 27 =$	$6 \times 15 =$
$5 \times 14 =$	$2 \times 27 =$	$6 \times 14 =$	$4 \times 19 =$

IX.

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

X.

1) $5 \times 9 + 16 =$	2) $6 \times 7 = 40 + ?$	3) $4 \times 8 = 40 - ?$
$4 \times 7 - 16 =$	$3 \times 9 = 22 + ?$	$8 \times 9 = 80 - ?$
$3 \times 8 + 27 =$	$5 \times 8 = 25 + ?$	$9 \times 7 = 66 - ?$
$7 \times 6 - 24 =$	$6 \times 6 = 29 + ?$	$5 \times 6 = 36 - ?$
$8 \times 4 + 35 =$	$7 \times 9 = 58 + ?$	$9 \times 9 = 90 - ?$
$7 \times 5 - 18 =$	$9 \times 5 = 39 + ?$	$6 \times 8 = 52 - ?$
$9 \times 4 + 36 =$	$8 \times 6 = 43 + ?$	$9 \times 6 = 59 - ?$
$8 \times 7 - 36 =$	$6 \times 9 = 49 + ?$	$8 \times 8 = 70 - ?$

Fünfte Übung.

Enthaltensein und Theilen oder Dividiren.

I.

- 1)** 1 in 3 = 3*) **2)** 2 in 14 = **3)** 3 in 9 = **4)** 3 in 6 =
 1 in 8 = 3 in 12 = 4 in 8 = 4 in 28 =
 2 in 4 = 2 in 8 = 3 in 15 = 2 in 16 =
 2 in 10 = 3 in 18 = 4 in 16 = 4 in 12 =
 1 in 7 = 2 in 20 = 3 in 24 = 3 in 12 =
 2 in 12 = 3 in 27 = 4 in 24 = 2 in 12 =
 2 in 18 = 2 in 16 = 3 in 21 = 4 in 36 =
 2 in 6 = 3 in 30 = 4 in 36 = 4 in 32 =
- 5)** 4 in 20 = **6)** 5 in 20 = **7)** 2 in 14 = **8)** 6 in 18 =
 2 in 20 = 5 in 10 = 4 in 40 = 6 in 30 =
 3 in 18 = 5 in 35 = 5 in 30 = 6 in 12 =
 2 in 18 = 5 in 5 = 3 in 15 = 6 in 48 =
 4 in 40 = 5 in 15 = 5 in 50 = 6 in 60 =
 4 in 28 = 5 in 40 = 4 in 32 = 6 in 24 =
 3 in 27 = 5 in 25 = 3 in 24 = 6 in 42 =
 4 in 24 = 5 in 45 = 4 in 20 = 6 in 54 =
 3 in 24 = 5 in 30 = 3 in 21 = 6 in 36 =
- 9)** 5 in 30 = **10)** 7 in 21 = **11)** 6 in 30 = **12)** 4 in 12 =
 6 in 36 = 7 in 42 = 5 in 30 = 6 in 36 =
 4 in 16 = 7 in 14 = 7 in 56 = 3 in 24 =
 5 in 25 = 7 in 70 = 5 in 45 = 2 in 14 =
 4 in 36 = 7 in 28 = 6 in 42 = 6 in 24 =
 3 in 9 = 7 in 49 = 7 in 63 = 5 in 15 =
 5 in 45 = 7 in 35 = 6 in 48 = 7 in 28 =
 5 in 10 = 7 in 63 = 4 in 28 = 5 in 40 =
 2 in 18 = 7 in 56 = 3 in 27 = 7 in 35 =
- 13)** 8 in 16 = **14)** 7 in 63 = **15)** 9 in 27 = **16)** 8 in 56 =
 8 in 40 = 6 in 54 = 9 in 9 = 7 in 35 =
 8 in 56 = 7 in 42 = 9 in 45 = 6 in 18 =
 8 in 24 = 4 in 24 = 9 in 63 = 5 in 40 =
 8 in 48 = 5 in 20 = 9 in 18 = 4 in 32 =
 8 in 72 = 7 in 28 = 9 in 81 = 3 in 27 =
 8 in 32 = 4 in 28 = 9 in 54 = 8 in 72 =
 8 in 64 = 7 in 49 = 9 in 36 = 9 in 90 =
 8 in 80 = 6 in 48 = 9 in 72 = 8 in 48 =

*) Wird gesprochen: 1 steckt in 3 dreimal; oder: 1 ist in 3 dreimal enthalten. — Ueber Reihenbildung siehe Wegweiser!

- 17) 10 in 50 = 18) 9 in 63 = 19) 9 in 27 = 20) 9 in 36 =
 10 in 20 = 7 in 21 = 8 in 32 = 8 in 40 =
 10 in 80 = 8 in 64 = 7 in 42 = 7 in 63 =
 10 in 10 = 6 in 54 = 6 in 36 = 6 in 12 =
 10 in 60 = 9 in 45 = 9 in 54 = 5 in 45 =
 10 in 30 = 8 in 40 = 8 in 24 = 3 in 24 =
 10 in 90 = 7 in 56 = 9 in 18 = 4 in 24 =
 10 in 70 = 7 in 14 = 7 in 28 = 6 in 24 =
 10 in 40 = 9 in 81 = 9 in 27 = 8 in 24 =
 10 in 100 = 5 in 25 = 4 in 20 = 9 in 36 =

II.

- 1) $\frac{1}{2}$ v. 8 = 4*) 2) $\frac{1}{4}$ v. 12 = 3) $\frac{1}{5}$ v. 10 = 4) $\frac{1}{4}$ v. 32 =
 $\frac{1}{2}$ v. 12 = $\frac{1}{4}$ v. 28 = $\frac{1}{5}$ v. 30 = $\frac{1}{5}$ v. 40 =
 $\frac{1}{3}$ v. 15 = $\frac{1}{4}$ v. 18 = $\frac{1}{5}$ v. 30 = $\frac{1}{5}$ v. 12 =
 $\frac{1}{3}$ v. 24 = $\frac{1}{5}$ v. 14 = $\frac{1}{5}$ v. 16 = $\frac{1}{6}$ v. 25 =
 $\frac{1}{2}$ v. 20 = $\frac{1}{4}$ v. 24 = $\frac{1}{5}$ v. 15 = $\frac{1}{4}$ v. 36 =
 $\frac{1}{4}$ v. 20 = $\frac{1}{5}$ v. 27 = $\frac{1}{5}$ v. 21 = $\frac{1}{5}$ v. 35 =
- 5) $\frac{1}{2}$ v. 18 = 6) $\frac{1}{5}$ v. 9 = 7) $\frac{1}{5}$ v. 50 = 8) $\frac{1}{7}$ v. 21 =
 $\frac{1}{6}$ v. 18 = $\frac{1}{4}$ v. 40 = $\frac{1}{6}$ v. 12 = $\frac{1}{5}$ v. 21 =
 $\frac{1}{5}$ v. 20 = $\frac{1}{5}$ v. 40 = $\frac{1}{6}$ v. 36 = $\frac{1}{6}$ v. 36 =
 $\frac{1}{2}$ v. 16 = $\frac{1}{6}$ v. 42 = $\frac{1}{7}$ v. 14 = $\frac{1}{7}$ v. 49 =
 $\frac{1}{6}$ v. 30 = $\frac{1}{4}$ v. 8 = $\frac{1}{4}$ v. 36 = $\frac{1}{6}$ v. 54 =
 $\frac{1}{5}$ v. 45 = $\frac{1}{6}$ v. 24 = $\frac{1}{7}$ v. 35 = $\frac{1}{7}$ v. 28 =
- 9) $\frac{1}{7}$ v. 42 = 10) $\frac{1}{7}$ v. 63 = 11) $\frac{1}{5}$ v. 27 = 12) $\frac{1}{9}$ v. 45 =
 $\frac{1}{6}$ v. 48 = $\frac{1}{3}$ v. 10 = $\frac{1}{5}$ v. 64 = $\frac{1}{10}$ v. 60 =
 $\frac{1}{8}$ v. 48 = $\frac{1}{5}$ v. 32 = $\frac{1}{5}$ v. 63 = $\frac{1}{9}$ v. 72 =
 $\frac{1}{8}$ v. 16 = $\frac{1}{6}$ v. 60 = $\frac{1}{5}$ v. 72 = $\frac{1}{7}$ v. 49 =
 $\frac{1}{4}$ v. 16 = $\frac{1}{7}$ v. 56 = $\frac{1}{5}$ v. 36 = $\frac{1}{8}$ v. 16 =
 $\frac{1}{8}$ v. 40 = $\frac{1}{5}$ v. 56 = $\frac{1}{5}$ v. 24 = $\frac{1}{10}$ v. 100 =

III.

- 1) 3 = $\frac{1}{3}$ v. 2) 6 = $\frac{1}{3}$ v. 3) 3 = $\frac{1}{3}$ v. 4) 5 = $\frac{1}{5}$ v.
 5 = $\frac{1}{4}$ v. 8 = $\frac{1}{7}$ v. 2 = $\frac{1}{10}$ v. 8 = $\frac{1}{5}$ v.
 1 = $\frac{1}{8}$ v. 5 = $\frac{1}{5}$ v. 7 = $\frac{1}{10}$ v. 5 = $\frac{1}{4}$ v.
 2 = $\frac{1}{5}$ v. 9 = $\frac{1}{9}$ v. 8 = $\frac{1}{8}$ v. 8 = $\frac{1}{8}$ v.
 4 = $\frac{1}{4}$ v. 4 = $\frac{1}{9}$ v. 6 = $\frac{1}{8}$ v. 7 = $\frac{1}{5}$ v.
 2 = $\frac{1}{8}$ v. 6 = $\frac{1}{6}$ v. 4 = $\frac{1}{4}$ v. 6 = $\frac{1}{7}$ v.
 6 = $\frac{1}{5}$ v. 9 = $\frac{1}{4}$ v. 5 = $\frac{1}{6}$ v. 7 = $\frac{1}{8}$ v.
 4 = $\frac{1}{8}$ v. 5 = $\frac{1}{7}$ v. 8 = $\frac{1}{5}$ v. 7 = $\frac{1}{7}$ v.

*) Wird gelesen: Die Hälfte von 8 ist 4 u. s. w.

IV.

$$\begin{aligned}
 1) & \left(\frac{1}{3} \text{ v. } 12\right) + 9 \\
 & \left(\frac{1}{5} \text{ v. } 35\right) + 12 \\
 & \left(\frac{1}{9} \text{ v. } 81\right) + 19 \\
 & \left(\frac{1}{2} \text{ v. } 16\right) + 28 \\
 & \left(\frac{1}{3} \text{ v. } 18\right) + 30 \\
 & \left(\frac{1}{4} \text{ v. } 28\right) + 39
 \end{aligned}$$

$$\begin{aligned}
 2) & 25 + \left(\frac{1}{8} \text{ v. } 42\right) \\
 & 38 + \left(\frac{1}{8} \text{ v. } 40\right) \\
 & 19 + \left(\frac{1}{3} \text{ v. } 63\right) \\
 & 36 + \left(\frac{1}{8} \text{ v. } 36\right) \\
 & 48 + \left(\frac{1}{8} \text{ v. } 56\right) \\
 & 56 + \left(\frac{1}{7} \text{ v. } 28\right)
 \end{aligned}$$

$$\begin{aligned}
 3) & 22 - \left(\frac{1}{8} \text{ v. } 54\right) \\
 & 41 - \left(\frac{1}{8} \text{ v. } 48\right) \\
 & 35 - \left(\frac{1}{3} \text{ v. } 54\right) \\
 & 80 - \left(\frac{1}{7} \text{ v. } 42\right) \\
 & 63 - \left(\frac{1}{7} \text{ v. } 63\right) \\
 & 100 - \left(\frac{1}{4} \text{ v. } 24\right)
 \end{aligned}$$

$$\begin{aligned}
 4) & \frac{1}{3} \text{ v. } (5 \times 6) \\
 & \frac{1}{8} \text{ v. } (6 \times 4) \\
 & \frac{1}{8} \text{ v. } (4 \times 9) \\
 & \frac{1}{4} \text{ v. } (8 \times 5) \\
 & \frac{1}{7} \text{ v. } (7 \times 9) \\
 & \frac{1}{10} \text{ v. } (6 \times 5) \\
 & \frac{1}{8} \text{ v. } (6 \times 6)
 \end{aligned}$$

$$\begin{aligned}
 5) & \frac{1}{8} \text{ v. } (57 + 7) \\
 & \frac{1}{7} \text{ v. } (29 + 6) \\
 & \frac{1}{3} \text{ v. } (45 + 9) \\
 & \frac{1}{7} \text{ v. } (39 + 9) \\
 & \frac{1}{8} \text{ v. } (74 + 6) \\
 & \frac{1}{3} \text{ v. } (65 + 7) \\
 & \frac{1}{10} \text{ v. } (61 + 9)
 \end{aligned}$$

$$\begin{aligned}
 6) & \frac{1}{5} \text{ v. } (22 - 7) \\
 & \frac{1}{3} \text{ v. } (32 - 8) \\
 & \frac{1}{9} \text{ v. } (24 - 6) \\
 & \frac{1}{7} \text{ v. } (30 - 9) \\
 & \frac{1}{6} \text{ v. } (31 - 7) \\
 & \frac{1}{9} \text{ v. } (90 - 9) \\
 & \frac{1}{8} \text{ v. } (53 - 8)
 \end{aligned}$$

V. *)

Wie oft steckt:

- 1) 2 in 5, 11, 7, 13; — 9, 17, 15, 19?
- 2) 3 in 10, 19, 23, 25, 11, 28; — 22, 13, 29, 20, 14, 26?
- 3) 4 in 11, 18, 22, 27, 34, 29; — 25, 33, 23, 37, 31, 39?
- 4) 5 in 16, 23, 34, 31, 22, 46; — 27, 37, 24, 43, 29, 48?
- 5) 6 in 14, 26, 43, 21, 58, 20; — 44, 16, 39, 49, 32, 28?
- 6) 6 in 33, 57, 37, 46, 27, 38; — 45, 51, 56, 35, 29, 53?
- 7) 7 in 15, 30, 22, 18, 36, 27; — 44, 66, 24, 38, 60, 31?
- 8) 7 in 39, 48, 55, 57, 50, 65; — 62, 47, 53, 40, 34, 68?
- 9) 8 in 20, 26, 15, 33, 30, 45; — 38, 27, 13, 37, 49, 42?
- 10) 8 in 22, 47, 50, 35, 58, 46; — 29, 73, 60, 78, 66, 63?
- 11) 9 in 15, 28, 20, 38, 26, 47; — 44, 30, 25, 40, 34, 50?
- 12) 9 in 39, 31, 64, 60, 48, 74; — 70, 25, 80, 84, 62, 88?
- 13) 10 in 35, 58, 22, 81, 63, 44; — 79, 16, 93, 52, 19, 37?

*) Schriftliche Darstellung: 2 in 5 = 2, N. 1 u. f. w. Siehe Wegweiser.

VI.*)

Wie viel beträgt:

- 1)** $\frac{1}{2}$ v. 7, 13, 5, 17; — 11, 15, 19, 9?
2) $\frac{1}{3}$ v. 7, 10, 16, 14, 25, 23; — 29, 11, 13, 20, 26, 5?
3) $\frac{1}{4}$ v. 13, 10, 19, 23, 17, 26; — 33, 30, 22, 37, 27, 35?
4) $\frac{1}{5}$ v. 16, 9, 27, 14, 23, 31; — 29, 44, 34, 47, 13, 37?
5) $\frac{1}{6}$ v. 19, 29, 49, 39, 23, 43; — 40, 55, 35, 45, 14, 50?
6) $\frac{1}{7}$ v. 20, 30, 40, 50, 60, 25; — 45, 55, 65, 58, 41, 48?
7) $\frac{1}{8}$ v. 26, 43, 12, 51, 20, 60; — 35, 65, 62, 43, 75, 55?
8) $\frac{1}{9}$ v. 29, 26, 39, 66, 17, 50; — 88, 60, 44, 74, 70, 53?
9) $\frac{1}{10}$ v. 36, 45, 13, 99, 27, 54; — 72, 84, 25, 61, 47, 92?

VII.

- 1)** $\frac{1}{6}$ v. 20 = **2)** $\frac{1}{8}$ v. 35 = **3)** $\frac{1}{9}$ v. 50 = **4)** $\frac{1}{5}$ v. 48 =
 $\frac{1}{8}$ v. 60 = $\frac{1}{2}$ v. 17 = $\frac{1}{7}$ v. 52 = $\frac{1}{9}$ v. 41 =
 $\frac{1}{3}$ v. 23 = $\frac{1}{2}$ v. 35 = $\frac{1}{7}$ v. 33 = $\frac{1}{9}$ v. 45 =
 $\frac{1}{5}$ v. 38 = $\frac{1}{9}$ v. 44 = $\frac{1}{4}$ v. 51 = $\frac{1}{4}$ v. 31 =
 $\frac{1}{7}$ v. 38 = $\frac{1}{6}$ v. 29 = $\frac{1}{8}$ v. 56 = $\frac{1}{8}$ v. 67 =
 $\frac{1}{4}$ v. 26 = $\frac{1}{5}$ v. 27 = $\frac{1}{2}$ v. 19 = $\frac{1}{7}$ v. 60 =

VIII.

- 1)** 2 in 40 = **2)** 2 in 24 = **3)** 2 in 66 = **4)** 6 in 66 =
4 in 80 = 3 in 39 = 3 in 96 = 2 in 82 =
3 in 60 = 2 in 28 = 2 in 84 = 3 in 66 =
5 in 100 = 4 in 48 = 5 in 55 = 2 in 48 =
2 in 60 = 2 in 42 = 3 in 63 = 3 in 93 =
3 in 90 = 3 in 69 = 2 in 68 = 9 in 99 =
2 in 80 = 4 in 88 = 3 in 36 = 2 in 86 =
2 in 100 = 2 in 64 = 4 in 84 = 4 in 88 =
- 5)** 2 in 25 = **6)** 2 in 85 = **7)** 3 in 68 = **8)** 3 in 32 =
2 in 43 = 3 in 95 = 4 in 43 = 7 in 74 =
3 in 34 = 2 in 29 = 5 in 58 = 4 in 82 =
2 in 67 = 4 in 86 = 2 in 81 = 8 in 89 =
4 in 45 = 2 in 49 = 6 in 68 = 9 in 95 =

*) Schriftliche Darstellung: $\frac{1}{2}$ v. 7 = 3, N. 1 u. f. w. Siehe Beweis.

IX.

1) $\frac{1}{3}$ v. 60 =	2) $\frac{1}{2}$ v. 26 =	3) $\frac{1}{3}$ v. 66 =	4) $\frac{1}{2}$ v. 84 =
$\frac{1}{2}$ v. 40 =	$\frac{1}{3}$ v. 36 =	$\frac{1}{4}$ v. 48 =	$\frac{1}{3}$ v. 96 =
$\frac{1}{3}$ v. 90 =	$\frac{1}{2}$ v. 24 =	$\frac{1}{2}$ v. 64 =	$\frac{1}{4}$ v. 88 =
$\frac{1}{2}$ v. 80 =	$\frac{1}{3}$ v. 63 =	$\frac{1}{5}$ v. 55 =	$\frac{1}{2}$ v. 68 =
$\frac{1}{4}$ v. 80 =	$\frac{1}{4}$ v. 44 =	$\frac{1}{3}$ v. 39 =	$\frac{1}{3}$ v. 69 =
$\frac{1}{3}$ v. 100 =	$\frac{1}{2}$ v. 42 =	$\frac{1}{4}$ v. 84 =	$\frac{1}{2}$ v. 82 =

5) $\frac{1}{2}$ v. 23 =	6) $\frac{1}{3}$ v. 94 =	7) $\frac{1}{3}$ v. 38 =	8) $\frac{1}{4}$ v. 85 =
$\frac{1}{3}$ v. 32 =	$\frac{1}{2}$ v. 49 =	$\frac{1}{5}$ v. 65 =	$\frac{1}{5}$ v. 58 =
$\frac{1}{2}$ v. 45 =	$\frac{1}{4}$ v. 47 =	$\frac{1}{3}$ v. 98 =	$\frac{1}{7}$ v. 79 =
$\frac{1}{4}$ v. 49 =	$\frac{1}{5}$ v. 56 =	$\frac{1}{2}$ v. 67 =	$\frac{1}{4}$ v. 89 =
$\frac{1}{3}$ v. 63 =	$\frac{1}{2}$ v. 81 =	$\frac{1}{2}$ v. 85 =	$\frac{1}{2}$ v. 69 =

X.

1) 2 in 30 =	2) 5 in 60 =	3) 5 in 90 =	4) 2 in 90 =
2 in 50 =	6 in 90 =	2 in 70 =	5 in 80 =
4 in 60 =	5 in 70 =	4 in 100 =	6 in 90 =

5) 2 in 36, 52, 38, 56, 74; — 32, 58, 92, 76, 98.
 6) 3 in 42, 48, 51, 45, 57; — 72, 81, 54, 78, 84.
 7) 4 in 56, 72, 52, 96, 76; — 92, 64, 60, 100, 68.
 8) 5 in 60, 75, 55, 80, 95; — 70, 85, 65, 90, 100.

9) 5 in 65 =	10) 5 in 75 =	11) 6 in 84 =	12) 5 in 95 =
6 in 72 =	6 in 96 =	5 in 85 =	6 in 78 =
7 in 84 =	7 in 91 =	8 in 96 =	4 in 92 =

XI.

1) $\frac{1}{2}$ v. 50 =	2) $\frac{1}{2}$ v. 32 =	3) $\frac{1}{3}$ v. 57 =	4) $\frac{1}{2}$ v. 72 =
$\frac{1}{4}$ v. 60 =	$\frac{1}{3}$ v. 45 =	$\frac{1}{4}$ v. 52 =	$\frac{1}{6}$ v. 78 =
$\frac{1}{3}$ v. 70 =	$\frac{1}{4}$ v. 56 =	$\frac{1}{5}$ v. 65 =	$\frac{1}{4}$ v. 92 =
$\frac{1}{2}$ v. 90 =	$\frac{1}{2}$ v. 38 =	$\frac{1}{6}$ v. 72 =	$\frac{1}{3}$ v. 54 =
$\frac{1}{3}$ v. 90 =	$\frac{1}{3}$ v. 48 =	$\frac{1}{2}$ v. 98 =	$\frac{1}{3}$ v. 96 =
$\frac{1}{5}$ v. 80 =	$\frac{1}{4}$ v. 72 =	$\frac{1}{3}$ v. 81 =	$\frac{1}{2}$ v. 94 =
$\frac{1}{3}$ v. 70 =	$\frac{1}{5}$ v. 75 =	$\frac{1}{4}$ v. 68 =	$\frac{1}{3}$ v. 84 =
$\frac{1}{4}$ v. 100 =	$\frac{1}{2}$ v. 54 =	$\frac{1}{2}$ v. 84 =	$\frac{1}{2}$ v. 91 =

XII.)*

$$\begin{array}{llll}
 \mathbf{1)} & 1 \text{ in } 30 = & \mathbf{2)} & 1 \text{ in } 25 = & \mathbf{3)} & 1 \text{ in } 36 = & \mathbf{4)} & 1 \text{ in } 48 = \\
 & 2 \text{ in } 30 = & & 2 \text{ in } 25 = & & 2 \text{ in } 36 = & & 2 \text{ in } 48 = \\
 & 3 \text{ in } 30 = & & 3 \text{ in } 25 = & & 3 \text{ in } 36 = & & 3 \text{ in } 48 = \\
 & \text{bis} & & \text{bis} & & \text{bis} & & \text{bis} \\
 & 10 \text{ in } 30 = & & 10 \text{ in } 25 = & & 10 \text{ in } 36 = & & 10 \text{ in } 48 =
 \end{array}$$

$$\begin{array}{lll}
 \mathbf{5)} & 25 = 1 \times 25 & \mathbf{6)} & 50 = 1 \times ? & \mathbf{7)} & 100 = 1 \times ? \\
 & 25 = 2 \times 12 + 1 & & 50 = 2 \times ? & & 100 = 2 \times ? \\
 & 25 = 3 \times 8 + 1 & & 50 = 3 \times ? & & 100 = 3 \times ? \\
 & \text{bis} & & \text{bis} & & \text{bis} \\
 & 25 = 10 \times ? & & 50 = 10 \times ? & & 100 = 10 \times ?
 \end{array}$$

-
- $\mathbf{8)} \frac{1}{2}$ v. 37, 55, 97, 59, 73, 35, 93, 77.
 $\mathbf{9)} \frac{1}{3}$ v. 73, 44, 85, 56, 49, 89, 71, 91.
 $\mathbf{10)} \frac{1}{4}$ v. 63, 55, 73, 99, 67, 93, 59, 77.
 $\mathbf{11)} \frac{1}{5}$ v. 77, 62, 87, 93, 69, 99, 71, 82.
 $\mathbf{12)} \frac{1}{6}$ v. 74, 85, 63, 98, 92, 65, 80, 100.
-

*) Man lasse auch mit anderen Zahlen solche Reihen bilden; siehe Beweiser, 2. Stufe, Enthaltensein.

Das Einmaleins.

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

Im Verlage von **Franz Kluge in Reval** sind von **Friedr. Wilh. Kellner** folgende arithmetische Lehr- und Lernmittel erschienen:

1. Wegweiser für den Rechenunterricht in Elementarschulen.

Erste Abteilung: Das Rechnen mit gleichbenannten ganzen Zahlen. Stufe I, II und III. 2. Auflage. 1880 Preis 50 Kopeken.

Zweite Abteilung: Das Rechnen mit ungleichbenannten ganzen Zahlen und mit Brüchen. — Regeldetri. Stufe IV. und V. 2. Aufl. 1885. Preis 50 Kopeken.

2. Methodisch-geordnete Aufgaben für das Kopfrechnen.

Erstes Heft: Die vier Species mit gleichbenannten ganzen Zahlen. Stufe I, II und III. 3. Auflage. 1888 Preis 50 Kopeken.

Zweites Heft: Die Grundrechnungsarten mit ungleichbenannten ganzen Zahlen. — Die Bruchrechnung mit unbenannten und gleichbenannten Zahlen. — Resolution und Reduktion in Brüchen. Regeldetri. Algebraische Aufgaben. Stufe IV, V und VI. 2. Auflage. 1884 Preis 60 Kopeken.

Drittes Heft: Zusammengesetzte Regeldetri. Zinsrechnung. Verhältnisbestimmungen. Gesellschaftsrechnung. Mischungsrechnung. Algebraische Aufgaben. Stufe VII und VIII Preis 50 Kopeken.

3. Methodisch-geordnete Aufgaben für das Tafelrechnen.

Erstes Heft: Die vier Species mit gleichbenannten Zahlen im Zahlenkreise v. 1 bis 10 u. von 10 bis 100. Stufe I u. II. 10. Aufl. 1899. Preis 20 Kop.

Zweites Heft: Die vier Species mit gleichbenannten Zahlen im unbegrenzten Zahlenkreise. Stufe III. 10. Auflage. 1897 Preis 20 Kopeken.

Drittes Heft: Die Grundrechnungsarten mit ungleichbenannten ganzen Zahlen. Stufe IV. 7. Auflage. 1896 Preis 25 Kopeken.

Viertes Heft: Bruchrechnung mit gleichbenannten und ungleichbenannten Zahlen. nebst Regeldetri. Stufe V. und VI. 6. Auflage. 1894. Preis 25 Kopeken.

Fünftes Heft: Die Dezimalbruchrechnung nebst einfacher und zusammengesetzter Regeldetri. (Mit Erklärungen.) Stufe VII. 4. Aufl. 1889. Preis 25 Kop.

Sechstes Heft: Zinsrechnung. Verhältnisbestimmungen. Gesellschaftsrechnung. Mischungsrechnung. Kettenrechnung. — Abgekürzte Multiplikation und Division der Dezimalbrüche. Wurzelrechnung. (Mit Erklärungen.) Stufe VIII. 4. Auflage. 1888 Preis 30 Kopeken.

4. Resultate der methodisch-geordnet. Aufgaben für das Tafelrechnen.

Erstes und zweites Heft (zusammen). 4. Auflage. 1888 Preis 25 Kopeken.

Drittes (6. Aufl. 1898), viertes u. fünftes Heft. 4. Aufl. 1898. à 25 Kopeken.

Sechstes Heft. 3. Auflage. 1885 Preis 30 Kopeken.

5. Arithmetische Extemporal-Aufgaben.

Inhalt: Gewöhnliche und Dezimalbrüche mit unbenannten und mehrfachbenannten Zahlen. — Regeldetri. 2. Auflage. 1882. Preis 10 Kopeken.

6. Ausführliche Anweisung für den Rechenunterricht

im Zahlenkreise von 1—100. Eine Zugabe zum Wegweiser für den Rechenunterricht in Elementarschulen. 1885 Preis 30 Kopeken.

7. Zahlentafel zu Fr. Wilh. Kellners methodischen Rechenwerken.

Lithographiert in Umschlag Preis 12 Kopeken.

