

# ADDITION



## Beispiel 1

$$\begin{array}{r}
 3 \\
 + 5 \\
 \hline
 8
 \end{array}$$

## Beispiel 2

I

$$\begin{array}{r}
 5 \\
 + 3 \\
 \hline
 8
 \end{array}$$

Diagram showing the addition of 5 and 3 to get 8. A pink box highlights the numbers 5 and 3. A pink arrow points from the top of the box to the number 8. A circled '1' is above the box. Below the horizontal line, the number 7 is written, with a pink arrow pointing from the 3 to the 7 and another pink arrow pointing from the 5 to the 7. A pink arrow also points from the 7 to the 8.

II

$$\begin{array}{r}
 9 \\
 + 3 \\
 \hline
 12
 \end{array}$$

Diagram showing the addition of 9 and 3 to get 12. A pink box highlights the numbers 9 and 3. A pink arrow points from the top of the box to the number 12. A circled '2' is above the box. Below the horizontal line, the number 12 is written, with a pink arrow pointing from the 3 to the 2 and another pink arrow pointing from the 9 to the 1. A pink arrow also points from the 12 to the 8 in the previous example.

## Beispiel 3

I

$$\begin{array}{r}
 489 \\
 + 378 \\
 + 256 \\
 \hline
 1123
 \end{array}$$

Diagram showing the addition of 489, 378, and 256 to get 1123. A pink box highlights the numbers 9, 8, and 6. A pink arrow points from the top of the box to the number 23. A circled '1' is above the box. Below the horizontal line, the number 23 is written, with a pink arrow pointing from the 6 to the 3 and another pink arrow pointing from the 9 to the 2. A pink arrow also points from the 23 to the 3 in the next example.

II

$$\begin{array}{r}
 489 \\
 + 378 \\
 + 256 \\
 \hline
 1123
 \end{array}$$

Diagram showing the addition of 489, 378, and 256 to get 1123. A pink box highlights the numbers 8, 7, and 5. A pink arrow points from the top of the box to the number 22. A circled '2' is above the box. Below the horizontal line, the number 22 is written, with a pink arrow pointing from the 5 to the 2 and another pink arrow pointing from the 8 to the 2. A pink arrow also points from the 22 to the 2 in the next example.

III

$$\begin{array}{r}
 11489 \\
 + 378 \\
 + 256 \\
 \hline
 11123
 \end{array}$$

Diagram showing the addition of 11489, 378, and 256 to get 11123. A pink box highlights the numbers 4, 8, and 6. A pink arrow points from the top of the box to the number 11. A circled '3' is above the box. Below the horizontal line, the number 11 is written, with a pink arrow pointing from the 6 to the 1 and another pink arrow pointing from the 4 to the 1. A pink arrow also points from the 11 to the 1 in the next example.

# SUBTRAKTION

Beispiel 1:

$$9 - 6 = 3$$

$$\begin{array}{r} 9 \\ - 6 \\ \hline 3 \end{array}$$

Diagram showing the subtraction process: 9 minus 6 equals 3. A blue arrow points from 9 to 6, and a blue arrow points from 6 to 3. A yellow arrow points from the 9 to the 3.

Beispiel 2:

$$8 - 4 = 4$$

$$\begin{array}{r} 8 \\ - 4 \\ \hline 4 \end{array}$$

Diagram showing the subtraction process: 8 minus 4 equals 4. A blue arrow points from 8 to 4, and a blue arrow points from 4 to 4. A yellow arrow points from the 8 to the 4.

Beispiel 3:

$$13 - 7 = 6$$

$$\begin{array}{r} 13 \\ - 7 \\ \hline 6 \end{array}$$

Diagram showing the subtraction process: 13 minus 7 equals 6. A blue arrow points from 13 to 7, and a blue arrow points from 7 to 6. A yellow arrow points from the 13 to the 6.

Beispiel 4:

$$43 - 28 = 15$$

$$\begin{array}{r} 1. \\ 43 \\ - 28 \\ \hline 15 \end{array}$$

Diagram showing the subtraction process: 43 minus 28 equals 15. A blue arrow points from 3 to 8, and a blue arrow points from 8 to 5. A yellow arrow points from the 43 to the 15. A pink arrow points from 3 to 8, and a pink arrow points from 8 to 5.

2.

$$\begin{array}{r} 43 \\ - 28 \\ \hline 15 \end{array}$$

Diagram showing the subtraction process: 43 minus 28 equals 15. A blue arrow points from 3 to 8, and a blue arrow points from 8 to 5. A yellow arrow points from the 43 to the 15. A pink arrow points from 3 to 8, and a pink arrow points from 8 to 5.

3.

$$\begin{array}{r} 43 \\ - 28 \\ \hline 15 \end{array}$$

Diagram showing the subtraction process: 43 minus 28 equals 15. A blue arrow points from 3 to 8, and a blue arrow points from 8 to 5. A yellow arrow points from the 43 to the 15. A pink arrow points from 3 to 8, and a pink arrow points from 8 to 5.

Beispiel 5:

$$894 - 768 - 29 = 97$$

$$\begin{array}{r} 1. \\ 894 \\ - 768 \\ - 29 \\ \hline 97 \end{array}$$

Diagram showing the subtraction process: 894 minus 768 minus 29 equals 97. A blue arrow points from 4 to 8, and a blue arrow points from 8 to 7. A yellow arrow points from the 894 to the 97. A pink arrow points from 4 to 8, and a pink arrow points from 8 to 7.

2.

$$\begin{array}{r} 894 \\ - 768 \\ - 29 \\ \hline 97 \end{array}$$

Diagram showing the subtraction process: 894 minus 768 minus 29 equals 97. A blue arrow points from 4 to 8, and a blue arrow points from 8 to 7. A yellow arrow points from the 894 to the 97. A pink arrow points from 4 to 8, and a pink arrow points from 8 to 7.

3.

$$\begin{array}{r} 894 \\ - 768 \\ - 29 \\ \hline 97 \end{array}$$

Diagram showing the subtraction process: 894 minus 768 minus 29 equals 97. A blue arrow points from 4 to 8, and a blue arrow points from 8 to 7. A yellow arrow points from the 894 to the 97. A pink arrow points from 4 to 8, and a pink arrow points from 8 to 7.

4.

$$\begin{array}{r} 894 \\ - 768 \\ - 129 \\ \hline 97 \end{array}$$

Diagram showing the subtraction process: 894 minus 768 minus 129 equals 97. A blue arrow points from 4 to 8, and a blue arrow points from 8 to 7. A yellow arrow points from the 894 to the 97. A pink arrow points from 4 to 8, and a pink arrow points from 8 to 7.

5.

$$\begin{array}{r} 894 \\ - 768 \\ - 129 \\ \hline 97 \end{array}$$

Diagram showing the subtraction process: 894 minus 768 minus 129 equals 97. A blue arrow points from 4 to 8, and a blue arrow points from 8 to 7. A yellow arrow points from the 894 to the 97. A pink arrow points from 4 to 8, and a pink arrow points from 8 to 7.

# MULTIPLIKATION

K 3

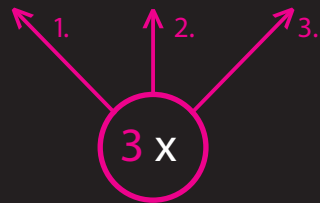


## Beispiel 1

$$3 \cdot 12 = 36$$

$$= \begin{array}{|c|} \hline \cdot \\ \hline \end{array} + \begin{array}{|c|} \hline \cdot \\ \hline \end{array} + \begin{array}{|c|} \hline \cdot \\ \hline \end{array}$$

$$= 12 + 12 + 12$$



## Beispiel 2

$$5 \cdot 7 = 35$$



$$5 \times \begin{array}{|c|} \hline \cdot \\ \hline \end{array} = 35$$

## Beispiel 3

$$358 \cdot 764 = 273512$$

### I Multiplikation

beginnend mit der vordersten Ziffer:

①. dann ②. dann ③.

				①.	②.	③.
3	5	8	.	7	6	4
	2	5	0	6	0	0
		2	1	4	8	0
			1	4	3	2

### II Addition

	2	5	0	6	0	0
		2	1	4	8	0
			1	4	3	2
	2	7	3	5	1	2

Multiplikation von rechts nach links!

①. Schritt 1

3	5	8	.	7
---	---	---	---	---

6 ← ⑥ dahin, ⑤ im Sinn

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Schritt 2

3	5	8	.	7
---	---	---	---	---

06 ↑ ⑦ dahin, ④ im Sinn

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Schritt 3

3	5	8	.	7
---	---	---	---	---

2506 ↑ ⑧ dahin, ① im Sinn

7 · 8 = ⑤⑥  
7 · 5 = ③⑤  
③⑤ + ⑤ = ④⑦  
7 · 3 = ②①  
②① + ④ = ②⑤

358 · 6 und 358 · 4 funktionieren ebenso wie 358 · 7:

3	5	8	.	6
---	---	---	---	---

3	5	8	.	4
---	---	---	---	---

# DIVISION

Beispiel 1:

$$12 : 4 = 3$$

denn:

$$12 = 4 \cdot 3$$

$$12 : 4 = 3$$

$$4 \cdot 3$$

$$12 : 4 = 3$$

$$\begin{array}{r} -12 \\ \hline 0 \end{array}$$

Beispiel 2:

$$1) \quad 125 : 5 = 25$$

$$\begin{array}{r} 125 : 5 = 25 \\ \underline{-10} \phantom{0} \\ 25 \phantom{0} \\ \underline{-25} \\ 0 \end{array}$$

$$2) \quad 125 : 5 = 25$$

$$3) \quad 125 : 5 = 25$$

$$4) \quad 125 : 5 = 25$$

Beispiel 3:

$$33927 : 43 = 789$$

K 4

Beispiel 4:

$$26,56 : 8 = 3,32$$