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| ZAHLenmauern | |
| **Lehrplaneinheit** | Grundrechenarten |
| **Leitidee** | Zahl |
| **Kompetenzen** | Probleme mathematisch lösen, mathematisch modellieren, kommunizieren ★ - ★★★ |
| **Sozialform, Methode** | Einzelarbeit, Partnerarbeit |
| **Ziel, Erwartungshorizont** | Umsetzung der Kenntnisse für Grundrechenarten |
| **Zeitlicher Umfang** | jeweils 5 – 10 Minuten |
| **Didaktische Hinweise** | Addition und Subtraktion von natürlichen und ganzen Zahlen |

1. Addiere jeweils die Zahlen der Nachbarsteine und schreibe das Ergebnis in den Stein darüber.

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | + |  |  | 17 | | |  | 18 | | |  | 7 | | |  |  | | |  | 10 | | |

1. Erfinde eine eigene Zahlenmauer und addiere richtig.

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1. Subtrahiere jeweils die linke Zahl von der oberen Zahl und schreibe sie in den Stein rechts daneben (siehe Beispiel). Zur Kontrolle kannst du die Zahlen aus den nebeneinanderstehenden Steinen addieren und du erhältst das Ergebnis darüber.

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|  |  |  |  |  |  |  |  |  |  |  |  |  | 351 | | |  |  |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  |  |  |  | 220 | | |  | 131 | | |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  |  | 130 | | |  |  | | |  |  | | |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  | 63 | | |  |  | | |  |  | | |  |  | | |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  | 9 | | |  |  | | |  |  | | |  |  | | |  |  | | |

1. Subtrahiere jeweils die linke Zahl von der oberen Zahl und schreibe sie in den Stein rechts daneben (siehe Beispiel). Zur Kontrolle kannst du die Zahlen aus den nebeneinanderstehenden Steinen addieren und du erhältst das Ergebnis darüber.

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|  |  |  |  |  |  |  |  |  |  |  |  |  | 436 | | |  |  |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  |  |  |  | 217 | | |  |  | | |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  |  |  | | |  |  | | |  | 99 | | |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  | 31 | | |  |  | | |  |  | | |  |  | | |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  | 4 | | |  |  | | |  |  | | |  |  | | |  |  | | |

1. Addiere jeweils die Zahlen der Nachbarsteine und schreibe das Ergebnis in den Stein darüber.

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|  |  |  |  |  |  |  |  |  |  |  |  | -89 | | |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | + |  |  |  |  |  | | |  |  | | |  | -26 | | |  |  | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | + |  |  | 11 | | |  | -5 | | |  | 7 | | |  |  | | |  | 10 | | |

1. Erfinde eine eigene Zahlenpyramide mit positiven und negativen Zahlen und addiere richtig.

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | + |  |  |  |  |  |  |  | | |  |  | | |  |  | | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | + |  |  |  |  |  | | |  |  | | |  |  | | |  |  | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | + |  |  |  | | |  |  | | |  |  | | |  |  | | |  |  | | |

1. Subtrahiere jeweils die linke Zahl von der oberen Zahl und schreibe sie in den Stein rechts daneben (siehe Beispiel). Zur Kontrolle kannst du die Zahlen aus den nebeneinanderstehenden Steinen addieren und du erhältst das Ergebnis darüber.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 45 | | |  |  |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  |  |  |  | 10 | | |  | 35 | | |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  |  | -12 | | |  |  | | |  |  | | |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  | 53 | | |  |  | | |  |  | | |  |  | | |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  | -9 | | |  |  | | |  |  | | |  |  | | |  |  | | |

1. Erfinde eine eigene Zahlenpyramide mit positiven und negativen Zahlen und subtrahiere richtig.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  |  |  |  |  | | |  |  | | |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  |  |  | | |  |  | | |  |  | | |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  | | |  |  | | |  |  | | |  |  | | |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  | | |  |  | | |  |  | | |  |  | | |  |  | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **L** | **1** |  |  |  |  |  |  | 205 | | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 108 | | |  | 97 | | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 60 | | |  | 48 | | |  | 49 | | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 35 | | |  | 25 | | |  | 23 | | |  | 26 | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 | | |  | 18 | | |  | 7 | | |  | 16 | | |  | 10 | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **L** | **3** |  |  |  |  |  |  | 351 | | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 220 | | |  | 131 | | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 130 | | |  | 90 | | |  | 41 | | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 63 | | |  | 67 | | |  | 23 | | |  | 18 | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | | |  | 54 | | |  | 13 | | |  | 10 | | |  | 8 | | |

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| **L** | **4** |  |  |  |  |  |  |  |  |  |  |  | 436 | | |  |  |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  |  |  |  | 217 | | |  | 219 | | |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  |  |  | 97 | | |  | 120 | | |  | 99 | | |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  |  |  | 31 | | |  | 66 | | |  | 54 | | |  | 45 | | |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  | = |  |  | 4 | | |  | 27 | | |  | 39 | | |  | 15 | | |  | 30 | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **L** | **5** |  |  |  |  |  |  | -89 | | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | -16 | | |  | -73 | | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 8 | | |  | -24 | | |  | -49 | | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 6 | | |  | 2 | | |  | -26 | | |  | -23 | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | | |  | -5 | | |  | 7 | | |  | -33 | | |  | 10 | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **L** | **7** |  |  |  |  |  |  | 45 | | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 10 | | |  | 35 | | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | -12 | | |  | 22 | | |  | 13 | | |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 53 | | |  | -65 | | |  | 87 | | |  | -74 | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -9 | | |  | 62 | | |  | -127 | | |  | 214 | | |  | -288 | | |