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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** | Multiplikation und Division von natürlichen und ganzen Zahlen, Potenzen - **Achtung! Bei diesen Aufgaben musst du auf die richtige Rechenart zu Beginn jeder Zeile achten!** |

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

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|  | ∙ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | ∙ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | ∙ |  |  |  |  | 2 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  | 0,5 |  | 4 |  | 1 |  | 2 |  | 0,5 |

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

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|  | ∙ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | ∙ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | ∙ |  |  |  |  | –12 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  | 3 |  | –4 |  | –0,5 |  | 2 |  | –0,25 |

1. Dividiere jeweils die linke Zahl durch die obere Zahl und schreibe sie in den Stein rechts daneben (siehe Beispiel). Zur Kontrolle kannst du die Zahlen aus den nebeneinanderstehenden Steinen multiplizieren und du erhältst das Ergebnis darüber.

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|  |  |  |  |  |  |  |  |  |  |  |  |  | 320 |  |  |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| : |  | = |  |  |  |  |  |  |  |  | -10 |  | -32 |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| : |  | = |  |  |  |  |  |  | 2,5 |  |  |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| : |  | = |  |  |  |  | 2,5 |  |  |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| : |  | = |  |  | 0,5 |  |  |  |  |  |  |  | 0,1 |

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

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|  |  |  |  |  |  |  |  |  |  |  |  | -40,5x8 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  | -2x |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  | -1 |  | 2x |  | –0,5 |  | 3x |  | 2 |

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

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|  |  |  |  |  |  |  |  |  |  |  |  | –40,5x15 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  | 2x2 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  | x |  | 2x |  | –0,5x |  | 3x |  | -2 |

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

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|  |  |  |  |  |  |  |  |  |  |  |  | –1,5x17 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  | -12x3 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  | 3x |  | -4x2 |  | -0,5 |  | 0,5x2 |  | -2 |

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| 1. | M |  |  |  |  |  |  |  |  |  |  | 1024 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  | 64 |  | 16 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  | 8 |  | 8 |  | 2 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  | 2 |  | 4 |  | 2 |  | 1 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  | 0,5 |  | 4 |  | 1 |  | 2 |  | 0,5 |

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| 2. | M |  |  |  |  |  |  |  |  |  |  | –48 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  | 48 |  | –1 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  | –24 |  | –2 |  | 0,5 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  | –12 |  | 2 |  | –1 |  | –0,5 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  | 3 |  | –4 |  | –0,5 |  | 2 |  | –0,25 |

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|  | 3 | D |  |  |  |  |  |  |  |  |  |  | 320 |  |  |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| : |  | = |  |  |  |  |  |  |  |  | -10 |  | -32 |  |  |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| : |  | = |  |  |  |  |  |  | 2,5 |  | -4 |  | 8 |  |  |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| : |  | = |  |  |  |  | 2,5 |  | 1 |  | -4 |  | -2 |  |  |
|  |  | 🡯 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| : |  | = |  |  | 0,5 |  | 5 |  | 0,2 |  | -20 |  | 0,1 |

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| 4. | M |  |  |  |  |  |  |  |  |  |  | -40,5x8 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  | 3x4 |  | -13,5x4 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  | 2 x2 |  | 1,5 x2 |  | -9x2 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  | -2x |  | -1x |  | -1,5x |  | 6x |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  | -1 |  | 2x |  | –0,5 |  | 3x |  | 2 |

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| 5. | M |  |  |  |  |  |  |  |  |  |  | –40,5x15 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  | –3x8 |  | 13,5x7 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  | –2x4 |  | 1,5x4 |  | 9x3 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  | 2x2 |  | –1x2 |  | –1,5x2 |  | –6x |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  | x |  | 2x |  | –0,5x |  | 3x |  | –2 |

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| 6. | M |  |  |  |  |  |  |  |  |  |  | –1,5x17 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  |  |  | 12x9 |  | –0,125x8 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  |  |  | –24x5 |  | –0,5x4 |  | 0,25x4 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  |  |  | –12x3 |  | 2x2 |  | –0,25x2 |  | –x2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ∙ |  |  | 3x |  | –4x2 |  | –0,5 |  | 0,5x2 |  | –2 |