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| Addition und Subtraktion Leiteraufgaben | |
| **Lehrplaneinheit** | Grundrechenarten |
| **Leitidee** | Zahl |
| **Kompetenzen** | Mit symbolischen Elementen der Mathematik umgehen |
| **Sozialform , Methode** | Übung in EA, PA, GA … (siehe Beschreibung) |
| **Ziel, Erwartungshorizont** | Umgang mit Zahlen und Automatisierung |
| **Zeitlicher Umfang** | ca. 3 x 20 Minuten |
| **Didaktische Hinweise** | Rechnen ohne Taschenrechner |

Beschreibung

Die folgenden Aufgaben (★) sind gemischt in Addition und Subtraktion und vom Schwierigkeitsgrad leicht. In erster Linie soll der Umgang mit den Zahlen Null und Eins eingeübt werden.

In der Aufgabe 2 sollen die SchülerInnen durch Einsetzen in die Lücken ein Gespür für den Wert der Zahlen Null und eins bekommen.

In der Aufgabe 3 sollen die SchülerInnen die Fachsprache der Mathematik erlernen und Rückwärtsaufgaben erstellen.

In der Aufgabe 4 sollen die SchülerInnen auf Fehlersuche gehen und den Fehler berichtigen. Die SchülerInnen sollen erkennen, dass nicht nur eine richtige Lösung existiert. Der Umgang mit einem Platzhalter kann auch weggelassen werden.

**A.1**: Gib die richtigen Lösungen an.

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| **Nr.** | **Aufgabe** | **Platz für Nebenrechnungen** | | | | | | | | | | | | | | | | | | | | | |
| 1. | 7 + 0 = |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Finde dein Ergebnis.** | | | | | | | | | | | | | | | | | | | | | |
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| 2. | 1 + 7 = |  |  |  |  |  |  |  |  | - 8 |  |  |  |  |  |  | 33 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  | 22 |  |  |  |  |  |  |  |  | 0 |  |  |  |  |  |
| 3. | -0 – 7 = |  |  |  |  |  |  |  |  |  |  | 7 |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  | - 7 |  |  |  | - x |  |  |  |  |  |  |  |  |  |
| 4. | 7 – 1 = |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 5. | -1 – 7 = |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 6. | -1 – 0 + 23 = |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 7. | 12 – 11 – 1 – 0 = |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 8. | 64 + 1 – 32 + 0 = |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 9. | x – 0 = |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 10. | 0 – x = |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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**A.2**: Setze für das Symbol **\_\_\_\_\_** eine Zahl ein, so dass die Gleichung stimmt.

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| **Nr.** | **Aufgabe** | **Platz für Nebenrechnungen** | | | | | | | | | | | | | | | | | | | | | |
| 1. | \_\_\_\_ + 6 = 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Finde dein Ergebnis.** | | | | | | | | | | | | | | | | | | | | | |
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| 2. | -6 + \_\_\_\_ = -5 |  |  |  |  |  |  |  |  | 10 |  |  |  |  |  |  | 6 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | -18 |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  | -6 |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |
| 3. | -6 + \_\_\_\_ = -7 |  |  |  |  |  |  |  |  |  | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | 4 |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  | -12 |  |  |  |  |  |  | 9 |  |  |  |  |  |  |  |
| 4. | \_\_\_\_ + 6 = -12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | -1 |  |  |  |  |  |  |  |  |  |
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| 5. | -6 + \_\_\_\_ = -12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 6. | 6 + ( 4 – \_\_\_\_) = 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 7. | 6 + (4 – \_\_\_\_) = 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 8. | -(6 + \_\_\_\_) = 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 9. | -(12 – \_\_\_\_) = -6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 10. | 2 – x + \_\_\_\_ = 6 – x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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**A.3**:

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| Gib eine Summe und eine Differenz an, die sich um Null unterscheiden.  Summe: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Differenz: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Gib eine Summe und eine Differenz an, die sich um Eins unterscheiden.  Summe: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Differenz: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**A.4**:

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| Was stimmt hier nicht?  0 – 4 + 9 = 13 |
| Löse die Gleichung richtig. |
| Ändere eine Zahl oder ein Rechenzeichen in der Gleichung, so dass sich das Ergebnis 13 ergibt. |

**A.3**:

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| Summe: 10 + 0 = 10  Differenz: 0 – (-10) = 10 Unterschied: 0 |
| Summe: 10 + 1 = 11  Differenz: 11 – 1 = 10 Unterschied: 1 |

**A.4**:

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| Die Rechnung stimmt nicht.  Die Zahl 4 muss von der Zahl 9 subtrahiert werden. |
| Die richtige Lösung lautet: 0 – 4 + 9 = 5 |
| Änderung des Rechenzeichens: 0 + 4 + 9 = 13  Änderung der Zahl 9 in die Zahl 17: 0 – 4 + 17 = 13  Änderung der Zahl 0 in die Zahl 8: 8 – 4 + 9 = 13 |