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|  | I Rechnen mit rationalen Zahlen, Check-out |  |  |
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Check-out Kapitel I

Schätze dich mithilfe der Checkliste ein.

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|  | Checkliste |  |  |  | Lerntipps | zum Nacharbeiten |
| 1. | Ich kann ganze Zahlen an der Zahlen­geraden darstellen, ablesen und ordnen. | 🞎 | 🞎 | 🞎 | Merkkasten auf Seite 8 und Beispiel auf Seite 9 | Seite 36: A1 a), A2  Seite 11: A17 |
| 2. | Ich kann rationale Zahlen auf der Zahlengeraden anordnen. | 🞎 | 🞎 | 🞎 | Beispiele 1 und 2 auf Seite 13 | Seite 36: A1 b) und c)  Seite 14 A7, A8 |
| 3. | Ich kann zu rationalen Zahlen eine positive Zahl addieren und subtra­hieren und zur Kontrolle den Über­schlag anwenden. | 🞎 | 🞎 | 🞎 | Merkkasten auf Seite 16 und Beispiel 1 und 2 auf Seite 17 | Seite 18: A6,  Seite 20: A17 und A18 sowie Seite 39: A24 |
| 4. | Ich kann zu rationalen Zahlen eine negative Zahl addieren und subtra­hieren und zur Kontrolle den Über­schlag anwenden. | 🞎 | 🞎 | 🞎 | Beispiel 1 auf Seite 22 | Seite 25: A17  Seite 36: A3 |
| 5. | Ich kann rationale Zahlen multipli­zieren und dividieren und zur Kon­trolle den Überschlag anwenden. | 🞎 | 🞎 | 🞎 | Lehrtext auf Seite 26 und Seite 27 und Beispiel 1 und 2 auf Seite 27 | Seite 37: A10 und A11 |
| 6. | Ich kann die Minusklammer anwenden. | 🞎 | 🞎 | 🞎 | Beispiel 1 auf Seite 32 | Seite 33: A8  Seite 35: A17 |
| 7. | Ich kann Rechenvorteile nutzen. | 🞎 | 🞎 | 🞎 | Beispiel 2 auf Seite 22  Beispiel 2 auf Seite 32 | Seite 35: A18  Seite 38: A16 |
| 8 | Ich kann Anwendungsaufgaben mit rationalen Zahlen lösen. | 🞎 | 🞎 | 🞎 |  | Seite 38: A17,  Seite 41 Runde 1: A4  Seite 41 Runde 2: A4 |

Überprüfe deine Einschätzung.



Zu 1. **Ganze Zahlen anordnen**

a) Gib an, welche Zahlen an den Zahlengeraden durch die Pfeile markiert sind.

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| b) Trage die Januartemperaturen der folgenden Länder auf einer Zah­lengeraden ein und ordne sie der Größe nach beginnend mit der kleinsten (Es handelt sich hierbei um Durchschnittstemperaturen):   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  | |  |  | | --- | --- | | Land | Temperatur | | Grönland | − 17 °C | | Kenia | 28 °C | | USA | 4 °C | | Russland | − 13 °C | | Japan | − 6 °C | |

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Zu 2. **Rationale Zahlen anordnen**

a) Zeichne eine Zahlengerade und trage die folgenden Zahlen ein: ; ; 4,2; ; ;

b) Ordne die Zahlen nach ihrer Größe. Beginne mit der kleinsten Zahl: 3,05; ; ; ; ;

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Zu 3. **Positive Zahlen addieren und subtrahieren**

Berechne. Überprüfe mithilfe eines Überschlages.

a) b) c)

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Zu 4. **Negative Zahlen addieren und subtrahieren**

Berechne. Überprüfe mithilfe eines Überschlages.

a) b) c) d)

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Zu 5. **Rationale Zahlen multiplizieren und dividieren**



Berechne. Überprüfe mithilfe eines Überschlages.

a) b) c) d)

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Zu 6. **Minusklammer anwenden**

Berechne.

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Zu 7. **Rechenvorteile nutzen**

Berechne möglichst geschickt.

a) b) c)

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Zu 8. **Anwendungsaufgaben lösen**

Auf einem Klassenausflug der Klasse 7 c bezahlt die Lehrerin den Eintritt für ein Museum für 29 Schüler. Pro Schüler zahlt sie 3,40 €. Zusätzlich erhält jeder Schüler eine Kugel Eis für 0,90 €. Insgesamt hat sie 150 € aus der Klassenkasse für den Ausflug mitgenommen. Entscheide, welche der angegebenen Terme für die Berechnung des Restgelds verwendet werden kann. Begründe deine Entscheidung.

(A) (B) (C)

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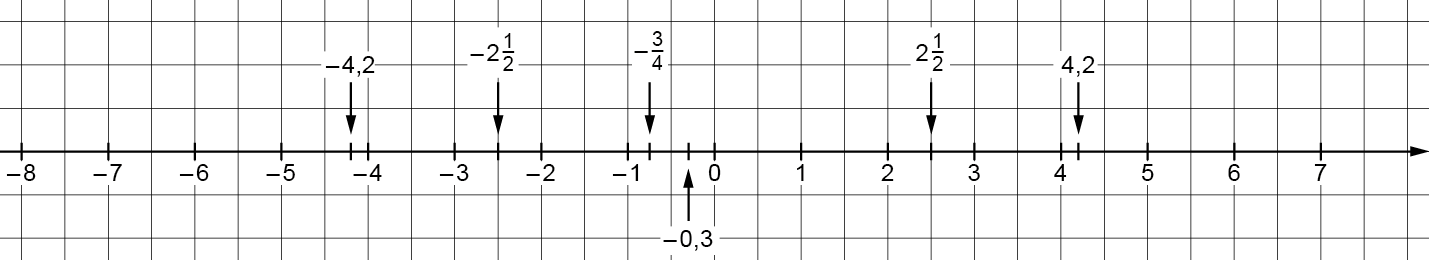
Check-out Kapitel I, S 21 – S 23

1 a)

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2 a)



b)

3 a) b) c)

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4 a) b) c) d)   
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5 a) b)

Überschlag: Überschlag:

c) d)   
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6 a)

b)

7 a)

b)

c)

8 (A)   
Dieser Term ist nicht verwendbar, weil von dem zu zahlenden Betrag der vorhandene Betrag (150 €) subtrahiert wird.

(B)   
Dieser Term ist anwendbar. Von dem vorhandenen Betrag (150 €) wird die Summe der Kosten für den Eintritt und das Eis für die 29 Schüler subtrahiert.

(C)   
Dieser Term ist anwendbar. Zu den negativen Kosten für 29 Eintrittskarten und 29 Eisportionen wird der   
vorhanden Betrag (150 €) addiert.