Check-out Kapitel II

Schätze dich mithilfe der Checkliste ein.

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|  | Checkliste |  |  |  | Lerntipps | zum Nacharbeiten |
| 1. | Ich kann Anteile mithilfe von  %-Angaben vergleichen. | 🞎 | 🞎 | 🞎 | Beispiel 1 auf Seite 47 | Seite 70: A. 2 |
| 2. | Ich kann die Begriffe Prozentsatz, Prozentwert und Grundwert bei einer entsprechenden Aufgabe richtig zuordnen. | 🞎 | 🞎 | 🞎 | Beispiel 2 auf Seite 47 | Seite 70: A. 1 und 3 je a) bis d) sowie A. 6 und 7 |
| 3. | Ich kann die drei Größen der Prozentrechnung mithilfe des Dreisatzes und mithilfe der Formel berechnen. | 🞎 | 🞎 | 🞎 | Beispiele 1 und 2 auf Seite 52 sowie Beispiele 1 und 2 auf Seite 57 | Seite 70: A. 4 |
| 4. | Ich kann Anwendungsaufgaben der Prozentrechnung lösen. | 🞎 | 🞎 | 🞎 | Beispiel 1 auf Seite 62 | Seite 71: A. 11 und  Seite 72: A. 18 |
| 5. | Ich kann die drei Größen der Zinsrechnung berechnen. | 🞎 | 🞎 | 🞎 | Beispiele 1 bis 3 auf Seite 67 | Seite 71: A. 8 und 9 |
| 6. | Ich kann Anwendungsaufgaben zur Zinsrechnung lösen. | 🞎 | 🞎 | 🞎 | Beispiele 1 bis 3 auf Seite 67 | Seite 71: A. 10 und 14 |

Überprüfe deine Einschätzung.



Zu 1. **Anteile mithilfe von %-Angaben vergleichen**

Berechne die jeweiligen Anteile in %. Ordne die Anteile der Größe nach.

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| a) |  | b) | |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | | c) | 0,58 |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |



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| Zu 2. **Begriffe Prozentsatz, Prozentwert und Grundwert richtig zuordnen**  Gib die Zahlen an, die den drei Fachbegriffen Prozentsatz, Prozentwert und Grundwert zuzuordnen sind.  a) 30 % von 1500 kg sind 450 kg.  b) Der Preis eines Autos wurde von bisher 35 000 € um 5 % auf 33 250 € gesenkt. |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |



Zu 3. **Größen der Prozentrechnung mithilfe des Dreisatzes und der Formel berechnen**

Löse einmal mithilfe des Dreisatzes und einmal mithilfe einer Formel.

a) Bestimme, wie viel Prozent 275 von 625 sind.

b) 12 % entsprechen 240 €. Ermittle, wie viel Euro dem Grundwert entsprechen.

c) Es sollen 15 % von 3000 kg berechnet werden.

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Zu 4. **Anwendungsaufgaben der Prozentrechnung lösen**

a) Die Erde ist etwa 150 Millionen km von der Sonne entfernt. Der Abstand des Planeten Jupiter beträgt etwa 520 % des Erdabstands. Berechne, wie weit der Jupiter von der Sonne entfernt ist.

b) Vor Schuljahresende soll in einem Schreibwarengeschäft das Lager geleert werden. Daher werden viele Artikel mit Preisnachlass verkauft. Auf ein Heft wird 25 % Rabatt gegeben. Bestimme, wie teuer das Heft ist, wenn der alte Preis 0,72 € betrug.

c) Ein Bauteil kostet mit 19 % Mehrwertsteuer 38,08 €. Ermittle, wie viel es ohne Mehrwertsteuer kostet.

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Zu 5. **Größen der Zinsrechnung berechnen**

Berechne die fehlenden Angaben. Schreibe deine Rechnungen dabei ausführlich auf.

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| --- | --- | --- | --- | --- |
| Kapital (in €) | 12 000 |  | 5 000 | 15 000 |
| Zinssatz | 2,3 % | 2 % | 1,5 % |  |
| Laufzeit | 1 Jahr | 360 Tage | 72 Tage | 44 Tage |
| Zinsen (in €) |  | 220 |  | 165 |

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Zu 6. **Anwendungsaufgaben der Zinsrechnung lösen**

Am 1. Januar hat Sylvia 120 € auf ihrem Sparkonto. Am 1. April zahlt sie 100 € ein und am 1. September 125 €. Bestimme, wie viel Euro sie bei einem Zinssatz von 3 % pro Jahr am Jahresende abheben kann.

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Check-out Kapitel II – Lösungen

1 a)

b) Anteil der dunklen Felder: ; d.h. Anteil der hellen Felder:

c)

2 a) Prozentsatz: 30 %; Grundwert: 1500 kg und Prozentwert: 450 kg.

b) Prozentsatz: 5 %; Grundwert: 35 000 € und Prozentwert:

3

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| a) | |  |  |  |  | | --- | --- | --- | --- | |  | 625 | 100 % |  | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 25 | 4 % | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 275 | 44 % | |  |  | | b) | |  |  |  |  | | --- | --- | --- | --- | |  | 12 % | 240 € |  | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 4 % | 80 € | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 100 % | 2000 € | |  |  | |

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| c) | |  |  |  |  | | --- | --- | --- | --- | |  | 100 % | 3000 kg |  | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 5 % | 150 kg | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 15 % | 450 kg | |  |  | |  |  |

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| a) | |  |  |  |  | | --- | --- | --- | --- | |  | 100 % | 150 Mio. km |  | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 20 % | 30 Mio. km | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 520 % | 780 Mio. km | |  |  | | b) | |  |  |  |  | | --- | --- | --- | --- | |  | 100 % | 0,72 € |  | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 25 % | 0,18 € | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 75 % | 0,54 € | |  |  | |

 €

Der Jupiter ist 780 Mio. km von der Erde entfernt. Das Heft kostet nach dem Rabatt noch 0,54 €.

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| c) | |  |  |  |  | | --- | --- | --- | --- | |  | 119 % | 38,08 € |  | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 1 % | 0,32 € | | **Pfeil_unten_klein rechts** | **Pfeil_unten_klein** | | 100 % | 32 € | |  |  | |  |  |

Das Bauteil kostet ohne Mehrwertsteuer 32 €.

5

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| --- | --- | --- | --- | --- |
| Kapital (in €) | 12 000 | **11** **000** | 5000 | 15 000 |
| Zinssatz | 2,3 % | 2 % | 1,5 % | **9** **%** |
| Laufzeit | 1 Jahr | 360 Tage | 72 Tage | 44 Tage |
| Zinsen (in €) | **276** | 220 | **15** | 165 |

a)

b)

c)

d)

(Alternativ kann mit dem Dreisatz gerechnet werden.)

6 Zinsen Januar bis März:

Zinsen April bis August:

Zinsen September bis Dezember:

Zinsen für das ganze Jahr:

Am Ende des Jahres kann Sylvia 127,10 € abheben.

(Alternativ kann mit dem Dreisatz gerechnet werden.)