## Übungsaufgaben zum Zinsrechnen — Lösungen

**1.** a) $p = 4.5\%$, $t = 270\,d$, $Z = 364.50$

$$K_1 = \frac{Z \cdot 360}{p \cdot t} = \frac{364.50 \cdot 360}{0.045 \cdot 270} = \underline{10'800.-}$$

b) $Z = 364.50$, $K_2 = 14580.-$, $t = 150\,d$

$$K_2 = 25380 - K_1$$

$$p = \frac{Z \cdot 360}{K \cdot t} = \frac{364.50 \cdot 360}{14580 \cdot 150} = 0{,}06 = \underline{6\%}$$

**2.** $A = x$

$B = 80\%$ von $x = 0{,}8x$

$C = 2 \cdot (x + 0{,}8x) = 3{,}6x$

a) $3{,}6x = 1890 \Rightarrow x = 525.-$

Also: $\underline{A = 525.-}$, $\underline{B = 420.-}$

b) $Z_{tot} = 2835.-$, $p = 3\%$

$$K = \frac{Z}{p} = \underline{94500.-}$$

**3.** Geg: $K = 1800.-$, $Z = 42.-$, $p = 0{,}035$

$$t = \frac{Z \cdot 360}{K \cdot p} = \frac{42 \cdot 360}{1800 \cdot 0{,}035} = \underline{240\,d}$$

**4.** Geg: 20.3.– 10.10. $\hat{=} 200\,d = t$, $K = 7200.-$, $Z = 130.-$

Ges: $p = ?$

$$p = \frac{Z \cdot 360}{K \cdot t} = \frac{130 \cdot 360}{7200 \cdot 200} = 0{,}0325$$

Also: $\underline{p = 3{,}25\%}$

**5.** Geg: $K = 360.-$, $Z = 6.-$

Ges: a) $p$

$$p = \frac{Z \cdot 360}{K \cdot t}$$

und $t = ?$ … $t = 150\,d$

Also: $p = \frac{6 \cdot 360}{360 \cdot 150} = 0{,}04 = \underline{4\%}$

Geg: $Z = 108.-$, $p = 4\% = 0{,}04$, $t = 360\,d$

Ges: b) $K$

$$K = \frac{Z \cdot 360}{p \cdot t}$$

$$K = \frac{108 \cdot 360}{0.04 \cdot 360} = \underline{2700.-}$$

6. $t = 8 + 4 \cdot 30 = 128\ d$

$Z = 6.80$

$K = 510.-$

$$p = \frac{Z \cdot 360}{K \cdot t} = 0{,}0375 = \underline{3{,}75\%}$$

7. PHASE 1: $K = 3600.-$

$Z = 139.50$

$t = ?$

PHASE 2: $K = 3600.-$

$Z = 3801.50 - 3739.50 = 62.-$

$t = 80d$

RECHNUNGSSCHRITTE:

1. $p$ (AUS PHASE 2) $= \frac{Z \cdot 360}{K \cdot t} = 0{,}0775 = \underline{7{,}75\%}$

2. $t$ (AUS PHASE 1) $= \frac{Z \cdot 360}{K \cdot p} = \frac{139.50 \cdot 360}{3600 \cdot 0.0775} = 180\ d$

3. TERMIN AUSLEIHE: <u>1. APRIL</u>

8. TEIL 1: $p = 4.5\%$

$Z = 246.-$

$t = 8 \cdot 30 = 240\ d$

$$K = \frac{Z \cdot 360}{p \cdot t} = 8200.-$$

TEIL 2: $K = 15700.- - 8200.- = 7500.-$

$t = 9 \cdot 30 = 270\ d$

$Z = 281.25$

$$p = \frac{Z \cdot 360}{K \cdot t} = 0{,}05 = \underline{5\%}$$

THAT'S IT !!