

**Zadatak 14.** Odredi sve vrijednosti realnog broja  $t$  ako je zadano:

- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| 1) $\operatorname{ctg} t = 0.25$ ;  | 2) $\operatorname{ctg} t = 1.55$ ;  |
| 3) $\operatorname{ctg} t = 10.24$ ; | 4) $\operatorname{ctg} t = -0.1$ ;  |
| 5) $\operatorname{ctg} t = -1.25$ ; | 6) $\operatorname{ctg} t = -25.6$ . |

- Rješenje.**
- 1)  $\operatorname{ctg} t = 0.25 \implies \operatorname{tg} t = \frac{1}{0.25} = 4 \implies t_1 = \operatorname{arc} \operatorname{tg} 4 = 75.96375653^\circ = 75^\circ 57' 50''$ ,  $t = 75^\circ 57' 50'' + k \cdot 180^\circ$ ,  $k \in \mathbf{Z}$ ;
  - 2)  $\operatorname{ctg} t = 1.55 \implies \operatorname{tg} t = \frac{1}{1.55} = 0.64516192 \implies t_1 = \operatorname{arc} \operatorname{tg} 0.64516192 = 32.82854179^\circ = 32^\circ 49' 43''$ ,  $t = 32^\circ 49' 43'' + k \cdot 180^\circ$ ,  $k \in \mathbf{Z}$ ;
  - 3)  $\operatorname{ctg} t = 10.24 \implies \operatorname{tg} t = \frac{1}{10.24} = 0.09765625 \implies t_1 = \operatorname{arc} \operatorname{tg} 0.09765625 = 5.577605107^\circ = 5^\circ 34' 39''$ ,  $t = 5^\circ 34' 39'' + k \cdot 180^\circ$ ,  $k \in \mathbf{Z}$ ;
  - 4)  $\operatorname{ctg} t = -0.1 \implies \operatorname{tg} t = \frac{1}{-0.1} = -10 \implies t_1 = \operatorname{arc} \operatorname{tg} -10 = -84.28940686^\circ = -84^\circ 17' 22''$ ,  $t = -84^\circ 17' 22'' + k \cdot 180^\circ$ ,  $k \in \mathbf{Z}$ ;
  - 5)  $\operatorname{ctg} t = -1.25 \implies \operatorname{tg} t = \frac{1}{-1.25} = -0.8 \implies t_1 = \operatorname{arc} \operatorname{tg} -0.8 = -38.65980825^\circ = -38^\circ 39' 35''$ ,  $t = -38^\circ 39' 35'' + k \cdot 180^\circ$ ,  $k \in \mathbf{Z}$ ;
  - 6)  $\operatorname{ctg} t = -25.6 \implies \operatorname{tg} t = \frac{1}{-25.6} = -0.0390625 \implies t_1 = \operatorname{arc} \operatorname{tg} -0.0390625 = -2.236979063^\circ = -2^\circ 14' 13''$ ,  $t = -2^\circ 14' 13'' + k \cdot 180^\circ$ ,  $k \in \mathbf{Z}$ .