Zadatak 12. Odredi glavnu mjeru kuta α ako je:

1) $\alpha = 555°$; **2)** $\alpha = -1210°$;
3) $\alpha = 2\,000°$; **4)** $\alpha = 7\,770°$;
5) $\alpha = -990°45'15''$; **6)** $\alpha = -2121°21'21''$.

Rješenje.

1) $\alpha = 555°$

$$\alpha' = \alpha - \left\lfloor \frac{\alpha}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = 555° - \left\lfloor \frac{555°}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = 555° - \lfloor 1.54 \rfloor \cdot 360°$$
$$\alpha' = 555° - 1 \cdot 360°$$
$$\alpha' = 195°;$$

2) $\alpha = -1210°$

$$\alpha' = \alpha - \left\lfloor \frac{\alpha}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = -1210° - \left\lfloor \frac{-1210°}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = -1210° - \lfloor -3.36 \rfloor \cdot 360°$$
$$\alpha' = -1210° - (-4) \cdot 360°$$
$$\alpha' = -1210° + 1080°$$
$$\alpha' = 230°;$$

3) $\alpha = 2\,000°$

$$\alpha' = \alpha - \left\lfloor \frac{\alpha}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = 2\,000° - \left\lfloor \frac{2\,000°}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = 2\,000° - \lfloor 5.55 \rfloor \cdot 360°$$
$$\alpha' = 2\,000° - 5 \cdot 360°$$
$$\alpha' = 2\,000° - 1\,800°$$
$$\alpha' = 200°;$$

4) $\alpha = 7\,770°$

$$\alpha' = \alpha - \left\lfloor \frac{\alpha}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = 7\,770° - \left\lfloor \frac{7\,770°}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = 7\,770° - \lfloor 21.39 \rfloor \cdot 360°$$
$$\alpha' = 7\,770° - 21 \cdot 360°$$
$$\alpha' = 7\,770° - 7\,560°$$
$$\alpha' = 140°;$$

5) $\alpha = -990°45'15''$

$$\alpha' = \alpha - \left\lfloor \frac{\alpha}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = -990°45'15'' - \left\lfloor \frac{-990°}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = -990°45'15'' - \lfloor -2.75 \rfloor \cdot 360°$$
$$\alpha' = -990°45'15'' - (-3) \cdot 360°$$
$$\alpha' = -990°45'15'' + 1080°$$
$$\alpha' = 1080° - 990°45'15''$$
$$\alpha' = 1079°59'60'' - 990°45'15''$$
$$\alpha' = 89°14'45'';$$

6) $\alpha = -2121°21'21''$

$$\alpha' = \alpha - \left\lfloor \frac{\alpha}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = -2121°21'21'' - \left\lfloor \frac{-2121°}{360°} \right\rfloor \cdot 360°$$
$$\alpha' = -2121°21'21'' - \lfloor -5.9 \rfloor \cdot 360°$$
$$\alpha' = -2121°21'21'' - (-6) \cdot 360°$$
$$\alpha' = -2121°21'21'' + 2160°$$
$$\alpha' = 2160° - 2121°21'21''$$
$$\alpha' = 2159°59'60'' - 2121°21'21''$$
$$\alpha' = 38°38'39''.$$