

## 1.2-Esercizi preliminari sui gradi

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### SISTEMA IN GRADI: DAL SESSAGESIMALE AL DECIMALE E VICEVERSA

Esercizi

$$1) \quad 1^{\circ} 59' 30'' = 1 + \frac{59}{60} + \frac{30}{3600} = 1,99^{\circ} \approx 2^{\circ}$$

$\uparrow$   
 $60^2$

$$2) \quad 20^{\circ} 30' = 20 + \frac{30}{60} = 20,5^{\circ}$$

$$3) \quad 15^{\circ} 30' 30'' = 15 + \frac{30}{60} + \frac{30}{3.600} = 15,5083^{\circ} \approx 15,51^{\circ}$$

$$4) \quad 92^{\circ} 20' 36'' = 92 + \frac{20}{60} + \frac{36}{3.600} = 92,34^{\circ}$$

DAL DECIMALE AL SESSAGESIMALE

$$5) \quad 2,234^{\circ} = 2^{\circ} 14' 2''$$

$$\begin{array}{r} 2,234 \\ - 2 \\ \hline 0,234 \times 60 = 14,04 \quad \text{Primi} \\ - 14 \\ \hline 0,04 \times 60 = 2,4 \approx 2'' \end{array}$$

$$6) \quad 22,52^{\circ} = 22^{\circ} 31' 12''$$

$$\begin{array}{r} 22,52 \\ - 22 \\ \hline 0,52 \times 60 = 31,2 \\ - 31 \\ \hline 0,2 \times 60 = 12 \end{array}$$

$$7) \quad 60,46^{\circ} = 60^{\circ} 27' 36''$$

$$60,46$$

$$0,46 = \boxed{00} \boxed{27} \boxed{36}$$

$$\begin{array}{r} \boxed{60,46} \\ - 60 \\ \hline 0,46 \times 60 = \boxed{27,6} \end{array}$$

$$\begin{array}{r} - 27 \\ \hline 0,6 \times 60 = \boxed{36''} \end{array}$$

SOMMA/DIFFERENZA CON GRADI SESAG.

8)

$$\begin{array}{r} 15^{\circ} \quad 32' \quad 52'' + \\ 2^{\circ} \quad 12' \quad 8'' = \\ \hline 17^{\circ} \quad 44' \quad 60'' \\ \quad \quad \quad \swarrow +1' \\ \hline 17^{\circ} \quad 45' \quad 0'' \end{array}$$

9)

$$\begin{array}{r} 27^{\circ} \quad 2' \quad 3'' + \\ 42^{\circ} \quad 12' \quad 56'' + \\ 1^{\circ} \quad 2' \quad 4'' = \\ \hline 70^{\circ} \quad 16' \quad 63'' \\ \quad \quad \quad +1' \quad -60'' \\ \hline 70^{\circ} \quad 17' \quad 3'' \end{array}$$

10)

$$\begin{array}{r} 180^{\circ} \quad 0' \quad 0'' - \\ 28^{\circ} \quad 30' \quad 58'' = \\ \hline 151^{\circ} \quad 29' \quad 2'' \end{array}$$

Handwritten annotations:  $179^{\circ}$  (green),  $59'$  (green),  $60''$  (purple) with arrows indicating borrowing from the degrees column.