

Addizione e sottrazione di angoli. Esercizi completi di soluzione guidata.
How to operate with angle measure (Geometry).

Addizione

1.	$10^{\circ} 20' + 8^{\circ} 15' + 8^{\circ} 15'$	$26^{\circ} 50'$ soluzione
2.	$12^{\circ} 32' 27'' + 35^{\circ} 18' 25''$	$47^{\circ} 50' 52''$ soluzione
3.	$32^{\circ} 45'' + 5^{\circ} 23' 11''$	$37^{\circ} 23' 56''$ soluzione
4.	$12' 45'' + 45^{\circ} 13''$	$45^{\circ} 12' 58''$ soluzione
5.	$72^{\circ} 20' 47'' + 35^{\circ} 18' 26''$	$107^{\circ} 39' 13''$ soluzione
6.	$12^{\circ} 54' 27'' + 53^{\circ} 58' 26''$	$66^{\circ} 52' 53''$ soluzione
7.	$23^{\circ} 44' 44'' + 23^{\circ} 33' 22''$	$46^{\circ} 18' 16''$ soluzione
8.	$23^{\circ} 22'' + 53' 52'' + 12^{\circ} 53'$	$36^{\circ} 47' 14''$ soluzione
9.	$30' 32'' + 40^{\circ} 48'' + 10^{\circ} 51'$	$1^{\circ} 22' 20''$ soluzione
10.	$89^{\circ} 56' 21'' + 32^{\circ} 48' 45''$	$122^{\circ} 45' 6''$ soluzione
11.	$31^{\circ} 25' 12'' + 3^{\circ} 56' 23''$	$35^{\circ} 21' 35''$ soluzione
12.	$72^{\circ} 20' 47'' + 35^{\circ} 18' 26''$	$107^{\circ} 39' 13''$ soluzione
13.	$180^{\circ} 59' 54'' + 2^{\circ} 8' 40'' + 32^{\circ} 58' 45''$	soluzione
14.	$100^{\circ} 57' 59'' + 108^{\circ} 38' 50'' + 132^{\circ} 57' 55''$	soluzione
15.	$10^{\circ} 58'' + 18^{\circ} 59' 22'' + 32^{\circ} 17'$	soluzione
16.	$98^{\circ} 56' 21'' + 12^{\circ} 1' 24'' + 32^{\circ} 48' 45''$	soluzione
17.	$12^{\circ} 57' 39'' + 11^{\circ} 56' 38'' + 10^{\circ} 55' 37''$	soluzione
18.	$12^{\circ} 34' 56'' + 14^{\circ} 34' 23'' + 11^{\circ} 11' 11'' + 12^{\circ} 23' 45''$	soluzione
19.	$123^{\circ} 12' 46'' + 12^{\circ} 12'' + 34^{\circ} 56' 12'' + 8^{\circ} 23' 58''$	soluzione

Sottrazione

20.	$97^{\circ} 23' 12'' - 17^{\circ} 12' 1''$	$80^{\circ} 11' 11''$ soluzione
21.	$47^{\circ} 35' 32'' - 17^{\circ} 14' 42''$	$30^{\circ} 20' 50''$ soluzione
22.	$32^{\circ} 30' 30'' - 12^{\circ} 19' 40''$	$20^{\circ} 10' 50''$ soluzione
23.	$180^{\circ} 45' 35'' - 150^{\circ} 49' 25''$	$29^{\circ} 56' 10''$ soluzione
24.	$90^{\circ} - 70^{\circ} 37' 45''$	$19^{\circ} 22' 15''$ soluzione
25.	$90^{\circ} - 55^{\circ} 47' 37''$	$4^{\circ} 12' 23''$ soluzione
26.	$180^{\circ} - 35^{\circ} 18' 26''$	$144^{\circ} 41' 34''$ soluzione
27.	$180^{\circ} - 80^{\circ} 37' 45''$	$99^{\circ} 22' 15''$ soluzione
28.	$360^{\circ} - 87^{\circ} 21' 54''$	$272^{\circ} 48' 6''$ soluzione
29.	$360^{\circ} - 160^{\circ} 21' 49''$	$199^{\circ} 38' 11''$ soluzione
30.	$57^{\circ} 21' - 7^{\circ} 20' 15''$	$50^{\circ} 45''$ soluzione
31.	$45^{\circ} 50' 39'' - 27^{\circ} 19' 46''$	$18^{\circ} 30' 53''$ soluzione
32.	$40^{\circ} 25' 37'' - 18^{\circ} 29' 45''$	$21^{\circ} 55' 52''$ soluzione
33.	$21^{\circ} 40' 40'' - 18^{\circ} 49' 41''$	$2^{\circ} 50' 59''$ soluzione
34.	$45^{\circ} 43' 44'' - 24^{\circ} 53' 54'' - 12^{\circ} 12' 49''$	$8^{\circ} 37' 1''$
35.	$66^{\circ} 46' 47'' - 3^{\circ} 56' 23''$	$62^{\circ} 50' 24''$

Soluzioni

Addizioni

$$10^{\circ} 20' + 8^{\circ} 15' + 8^{\circ} 15' =$$

$$\begin{array}{r} 8^{\circ} 15' + \\ 8^{\circ} 15' + \\ \hline 10^{\circ} 20' = \\ \hline 26^{\circ} 50' \end{array}$$

$$12^{\circ} 32' 27'' + 35^{\circ} 18' 25'' =$$

$$\begin{array}{r} 12^{\circ} 32' 27'' + \\ \hline 35^{\circ} 18' 25'' = \\ \hline 47^{\circ} 50' 52'' \end{array}$$

$$32^{\circ} 45'' + 5^{\circ} 23' 11'' =$$

$$\begin{array}{r} 12^{\circ} 00' 45'' + \\ \hline 5^{\circ} 23' 11'' = \\ \hline 37^{\circ} 23' 56'' \end{array}$$

$$12' 45'' + 45^{\circ} 13'' =$$

$$\begin{array}{r} 00^{\circ} 12' 45'' + \\ \hline 45^{\circ} 00' 13'' = \\ \hline 45^{\circ} 12' 58'' \end{array}$$

$$72^\circ 20' 47'' + 35^\circ 18' 26'' =$$

$$\begin{array}{r} 72^\circ 20' 47'' + \\ 35^\circ 18' 26'' = \\ \hline 107^\circ 38' 73'' \\ 1' 13'' \\ \hline 107^\circ 39' 13'' \end{array}$$

$$12^\circ 54' 27'' + 53^\circ 58' 26'' =$$

$$\begin{array}{r} 12^\circ 54' 27'' + \\ 53^\circ 58' 26'' = \\ \hline 65^\circ 112' 53'' \\ 1^\circ 52' \\ \hline 66^\circ 52' 53'' \end{array}$$

$$23^\circ 44' 44'' + 23^\circ 33' 22'' =$$

$$\begin{array}{r} 23^\circ 44' 44'' + \\ 23^\circ 33' 22'' = \\ \hline 45^\circ 77' 66'' \\ 1' 16'' \\ \hline 45^\circ 78' 16'' \\ 1^\circ 18' \\ \hline 46^\circ 18' 16'' \end{array}$$

$$23^{\circ} 22'' + 53' 52'' + 12^{\circ} 53' =$$

$$\begin{array}{r} 23^{\circ} 00' 22'' + \\ 00^{\circ} 53' 52'' + \\ \hline 12^{\circ} 53' 00'' = \\ \hline 35^{\circ} 106' 74'' \\ \quad \quad \quad 1' 14'' \\ \hline 35^{\circ} 107' 14'' \\ \quad \quad \quad 1^{\circ} 47' \\ \hline 36^{\circ} 47' 14'' \end{array}$$

$$30' 32'' + 40^{\circ} 48'' + 10^{\circ} 51' =$$

$$\begin{array}{r} 0^{\circ} 30' 32'' + \\ 40^{\circ} 0' 48'' + \\ \hline 10^{\circ} 51' 0'' = \\ \hline 50^{\circ} 81' 80'' \\ \quad \quad \quad 1' 20'' \\ \hline 50^{\circ} 82' 20'' \\ \quad \quad \quad 1^{\circ} 22' \\ \hline 1^{\circ} 22' 20'' \end{array}$$

$$89^{\circ} 56' 21'' + 32^{\circ} 48' 45'' =$$

$$\begin{array}{r} 89^{\circ} 56' 21'' + \\ \hline 32^{\circ} 48' 45'' = \\ \hline 121^{\circ} 104' 66'' \\ \quad \quad \quad 1' 6'' \\ \hline 121^{\circ} 105' 6'' \\ \quad \quad \quad 1^{\circ} 45' \\ \hline 122^{\circ} 45' 6'' \end{array}$$

$$31^{\circ}25'12 + 3^{\circ}56'23 =$$

$$\begin{array}{r} 31^{\circ} \quad 25' \quad 12'' \quad + \\ \underline{3^{\circ} \quad 56' \quad 23''} = \\ 34^{\circ} \quad 81' \quad 35'' \\ \underline{1^{\circ} \quad 21'} \\ 35^{\circ} \quad 21' \quad 35'' \end{array}$$

$$72^{\circ} \quad 20' \quad 47'' + 35^{\circ} \quad 18' \quad 26'' =$$

$$\begin{array}{r} 72^{\circ} \quad 20' \quad 47'' \quad + \\ \underline{35^{\circ} \quad 18' \quad 26''} = \\ 107^{\circ} \quad 38' \quad 73'' \\ \underline{\quad \quad 1' \quad 13''} \\ 107^{\circ} \quad 39' \quad 13'' \end{array}$$

$$180^{\circ} \quad 59' \quad 54'' + 2^{\circ} \quad 8' \quad 40'' + 32^{\circ} \quad 58' \quad 45'' =$$

$$\begin{array}{r} 180^{\circ} \quad 59' \quad 54'' \quad + \\ \quad 2^{\circ} \quad 9' \quad 40'' \\ \underline{32^{\circ} \quad 58' \quad 45''} = \\ 214^{\circ} \quad 126' \quad 139'' \\ \underline{\quad \quad 2' \quad 19''} \\ 214^{\circ} \quad \del{128}' \quad 19'' \\ \underline{\quad 2^{\circ} \quad 8'} \\ 216^{\circ} \quad 8' \quad 19'' \end{array}$$

$$100^{\circ} 57' 59'' + 108^{\circ} 38' 50'' + 132^{\circ} 57' 55'' =$$

$$\begin{array}{r}
 100^{\circ} \quad 57' \quad 59'' + \\
 108^{\circ} \quad 38' \quad 50'' \\
 132^{\circ} \quad 57' \quad 55'' = \\
 \hline
 340^{\circ} \quad 152' \quad \color{red}{164''} \\
 \phantom{340^{\circ}} \quad \\
 \phantom{340^{\circ}} \quad \\
 \phantom{340^{\circ}} \quad \\
 \hline
 \phantom{340^{\circ}} \quad 2' \quad 44'' \\
 \hline
 340^{\circ} \quad \color{red}{154'} \quad 44'' \\
 \phantom{340^{\circ}} \quad \\
 \phantom{340^{\circ}} \quad \\
 \hline
 \phantom{340^{\circ}} \quad 2^{\circ} \quad 34' \\
 \hline
 342^{\circ} \quad 34' \quad 44''
 \end{array}$$

$$10^{\circ} 58'' + 18^{\circ} 59' 22'' + 32^{\circ} 17' =$$

$$\begin{array}{r}
 10^{\circ} \quad 0' \quad 58'' + \\
 18^{\circ} \quad 59' \quad 22'' \\
 32^{\circ} \quad 17' \quad 0'' = \\
 \hline
 60^{\circ} \quad 76' \quad \color{red}{80''} \\
 \phantom{60^{\circ}} \quad \\
 \phantom{60^{\circ}} \quad \\
 \phantom{60^{\circ}} \quad \\
 \hline
 \phantom{60^{\circ}} \quad 1' \quad 20'' \\
 \hline
 60^{\circ} \quad \color{red}{77'} \quad 20'' \\
 \phantom{60^{\circ}} \quad \\
 \phantom{60^{\circ}} \quad \\
 \hline
 \phantom{60^{\circ}} \quad 1^{\circ} \quad 17' \\
 \hline
 61^{\circ} \quad 17' \quad 20''
 \end{array}$$

$$98^{\circ} 56' 21'' + 12^{\circ} 1' 24'' + 32^{\circ} 48' 45'' =$$

$$\begin{array}{r}
 98^{\circ} \quad 56' \quad 21'' + \\
 12^{\circ} \quad 1' \quad 24'' + \\
 32^{\circ} \quad 48' \quad 45'' = \\
 \hline
 142^{\circ} \quad 105' \quad \color{red}{90''} \\
 \phantom{142^{\circ}} \quad \\
 \phantom{142^{\circ}} \quad \\
 \phantom{142^{\circ}} \quad \\
 \hline
 \phantom{142^{\circ}} \quad 1' \quad 30'' \\
 \hline
 142^{\circ} \quad \color{red}{106'} \quad 30'' \\
 \phantom{142^{\circ}} \quad \\
 \phantom{142^{\circ}} \quad \\
 \hline
 \phantom{142^{\circ}} \quad 1^{\circ} \quad 46' \\
 \hline
 143^{\circ} \quad 46' \quad 30''
 \end{array}$$

$$12^\circ 57' 39'' + 11^\circ 56' 38'' + 10^\circ 55' 37'' =$$

$$\begin{array}{r}
 12^\circ \quad 57' \quad 39'' \quad + \\
 11^\circ \quad 56' \quad 38'' \quad + \\
 \hline
 10^\circ \quad 55' \quad 37'' \quad = \\
 \hline
 33^\circ \quad 168' \quad \color{red}{114''} \\
 \quad \quad \\
 \quad \quad \\
 \quad \quad \\
 \hline
 \quad 1' \quad 54'' \\
 \hline
 33^\circ \quad \color{red}{169'} \quad 54'' \\
 \quad \quad \\
 \quad \quad \\
 \hline
 2^\circ \quad 49' \\
 \hline
 35^\circ \quad 49' \quad 54''
 \end{array}$$

$$12^\circ 34' 56'' + 14^\circ 34' 23'' + 11^\circ 11' 11'' + 12^\circ 23' 45''$$

gradi	primi	secondi	
12	34	56	+
14	34	23	+
11	11	11	+
12	23	45	=
49	102	135	
50	44	15	

$$123^\circ 12' 46'' + 12^\circ 12'' + 34^\circ 56' 12'' + 8^\circ 23' 58'' \quad [178^\circ 44' 56'']$$

gradi	primi	secondi	
123	12	46	+
12	12		+
34	56	12	+
8	23	58	=
177	103	116	
178	44	56	

$$180^\circ 45' 35'' - 150^\circ 49' 25'' =$$

$$\begin{array}{r} -1 \quad +60 \\ 180^\circ 45' 35'' \gg \gg \end{array} \quad \begin{array}{r} 179^\circ 105' 35'' - \\ \underline{150^\circ 49' 25''} = \\ 29^\circ 56' 10'' \end{array}$$

$$90^\circ - 70^\circ 37' 45'' =$$

$$\begin{array}{r} 89^\circ 59' 60'' - \\ \underline{70^\circ 37' 45''} = \\ 19^\circ 22' 15'' \end{array} \quad 90^\circ = 89^\circ 60' = 89^\circ 59' 60''$$

$$90^\circ - 85^\circ 47' 37'' =$$

$$\begin{array}{r} 89^\circ 59' 60'' - \\ \underline{85^\circ 47' 37''} = \\ 4^\circ 12' 23'' \end{array} \quad 90^\circ = 89^\circ 60' = 89^\circ 59' 60''$$

$$180^\circ - 35^\circ 18' 26'' =$$

$$\begin{array}{r} 179^\circ 59' 60'' - \\ \underline{35^\circ 18' 26''} = \\ 144^\circ 41' 34'' \end{array} \quad 180^\circ = 179^\circ 60' = 179^\circ 59' 60''$$

$$180^\circ - 80^\circ 37' 45'' =$$

$$\begin{array}{r} 179^\circ 59' 60'' - \\ 80^\circ 37' 45'' = \\ \hline 99^\circ 22' 15'' \end{array}$$

$$180^\circ = 179^\circ 60' = 179^\circ 59' 60''$$

$$360^\circ - 87^\circ 21' 54'' =$$

$$\begin{array}{r} 359^\circ 59' 60'' - \\ 87^\circ 21' 54'' = \\ \hline 272^\circ 48' 6'' \end{array}$$

$$360^\circ = 359^\circ 60' = 359^\circ 59' 60''$$

$$360^\circ - 160^\circ 21' 49'' =$$

$$\begin{array}{r} 359^\circ 59' 60'' - \\ 160^\circ 21' 49'' = \\ \hline 199^\circ 38' 11'' \end{array}$$

$$57^\circ 21' - 7^\circ 20' 15'' =$$

$$\begin{array}{r} -1 \quad +60 \\ 57^\circ 21' 00'' - \\ \underline{7^\circ 20' 15''} = \end{array}$$

$$\begin{array}{r} 57^\circ 20' 60'' - \\ \underline{7^\circ 20' 15''} = \\ 50^\circ 0' 45'' \end{array}$$

$$21' = 20' 60''$$

$$45^\circ 50' 39'' - 27^\circ 19' 46'' =$$

$$\begin{array}{r} -1 \quad +60 \\ 45^\circ 50' 39'' - \\ \underline{27^\circ 19' 46''} = \end{array}$$

$$\begin{array}{r} 45^\circ 49' 99'' - \\ \underline{27^\circ 19' 46''} = \\ 18^\circ 30' 53'' \end{array}$$

$$40^\circ 25' 37'' - 18^\circ 29' 45'' =$$

$$\begin{array}{r} -1 \quad +60 \\ -1 \quad +60 \\ 40^\circ 25' 37'' - \\ \underline{18^\circ 29' 45''} = \end{array}$$

$$\begin{array}{r} 39^\circ 84' 97'' - \\ \underline{18^\circ 29' 45''} = \\ 21^\circ 55' 52'' \end{array}$$

$$21^{\circ} 40' 40'' - 18^{\circ} 49' 41'' =$$

$$\begin{array}{r} -1 \quad +60 \\ \quad -1 \quad +60 \\ 21^{\circ} 40' 40'' - \\ \underline{18^{\circ} 49' 41''} = \end{array}$$

$$\begin{array}{r} 20^{\circ} 99' 100'' - \\ \underline{18^{\circ} 49' 41''} = \\ 2^{\circ} 50' 59'' \end{array}$$

$$45^{\circ} 43' 44'' - 24^{\circ} 53' 54'' - 12^{\circ} 12' 49'' =$$

$$\begin{array}{r} -1 \quad +60 \\ \quad -1 \quad +60 \\ 45^{\circ} 43' 44'' - \\ \underline{24^{\circ} 53' 54''} = \end{array}$$

$$\begin{array}{r} 44^{\circ} 102' 104'' - \\ \underline{24^{\circ} 53' 54''} = \\ 20^{\circ} 49' 50'' \end{array}$$

$$\begin{array}{r} 20^{\circ} 49' 50'' - \\ \underline{12^{\circ} 12' 49''} = \\ 8^{\circ} 37' 1'' \end{array}$$

$$66^{\circ} 46' 47'' - 3^{\circ} 56' 23'' =$$

$$\begin{array}{r} 66^{\circ} 46' 47'' \\ -1 \quad +60 \\ 65^{\circ} 106' 47'' - \\ \underline{3^{\circ} 56' 23''} = \\ 62^{\circ} 50' 24'' \end{array}$$