Exercise 4A

Question 4:

(i) Complement of $58^\circ = 90^\circ - 58^\circ = 32^\circ$

(ii) Complement of $16^\circ = 90 - 16^\circ = 74^\circ$

(iii) $\frac{2}{3}$ of a right angle $= \frac{2}{3} \times 90^\circ = 60^\circ$

Complement of $60^\circ = 90^\circ - 60^\circ = 30^\circ$

(iv) $1^\circ = 60'$

$\Rightarrow 90^\circ = 89^\circ\ 60'$

| Deg | Min |
|---|---|
| 89° | 60′ |
| ~~90°~~ | 0′ |
| − 46° | 30′ |
| 43° | 30′ |

Complement of $46^\circ\ 30' = 90^\circ - 46^\circ\ 30' = 43^\circ\ 30'$

(v) $90^\circ = 89^\circ\ 59'\ 60''$

| Deg | Min | Sec |
|---|---|---|
| 89° | 59′ | 60″ |
| ~~90°~~ | 0′ | 0″ |
| − 52° | 43′ | 20″ |
| 37° | 16′ | 40″ |

Complement of $52^\circ\ 43'\ 20'' = 90^\circ - 52^\circ\ 43'\ 20''$

$= 37^\circ\ 16'\ 40''$

(vi) $90^\circ = 89^\circ\ 59'\ 60''$

| Deg | Min | Sec |
|---|---|---|
| 89° | 59′ | 60″ |
| ~~90°~~ | 0′ | 0″ |
| − 68° | 35′ | 45″ |
| 21° | 24′ | 15″ |

$\therefore$ Complement of $(68^\circ\ 35'\ 45'')$

$= 90^\circ - (68^\circ\ 35'\ 45'')$

$= 89^\circ\ 59'\ 60'' - (68^\circ\ 35'\ 45'')$

$= 21^\circ\ 24'\ 15''$

********** END **********