

EXERCISE VI.

1. $15^{\circ} 54' 56''$; 39.48 in.
2. $8^{\circ} 47'$.
3. $58^{\circ} 32'$.
4. 45° .
5. $18^{\circ} 26'$; $71^{\circ} 34'$.
6. 96.84 ft.; 70.87 ft.
7. 17.76 ft.
8. $27^{\circ} 49'$.
9. 4.104 in.
10. $a=34.41$, $b=26.63$, $c=36.22$, $C=71^{\circ} 29'$.
11. $59^{\circ} 52'$, $51^{\circ} 32'$, $68^{\circ} 36'$.
12. $C=84^{\circ} 58'$, $a=17.157$, $b=11.896$.

EXERCISE VII

1. $41^{\circ} 40'$ and $138^{\circ} 20'$.
2. $61^{\circ} 46'$ and $-61^{\circ} 46'$.

EXERCISE VIII.

2. 4.4933.
3. $70^{\circ} 32'$ or $-70^{\circ} 32'$.
4. 1.2587.
5. (a) $\angle AOP=108^{\circ} 36'$. (b) $\angle AOP=73^{\circ} 32'$.

EXERCISE IX.

1. $48^{\circ} 48'$ or $131^{\circ} 12'$.
2. Triangle imaginary.
3. $C=112^{\circ} 5'$, $a=14.70$, $b=5.37$.
4. $A=30^{\circ} 2'$, $C=82^{\circ} 43'$, $c=48.76$.
5. $A=34^{\circ} 4'$, $C=78^{\circ} 36'$, $b=79.07$.
6. 21.48 ft.
7. 16.5 ft.
8. 9.16 ft.
9. 6.2.
10. $8^{\circ} 14'$.

EXERCISE X.

1. $A=53^{\circ} 8'$, $B=59^{\circ} 29'$, $C=67^{\circ} 23'$.
2. 38.68.
3. 2.78.
4. $A=48^{\circ} 49'$, $B=93^{\circ} 27'$, $c=34.39$.
5. 747 rods.
6. 1.64 m.; $17^{\circ} 31'$ east of N.
7. 2.62 m.; 3.39 m.

EXERCISE XI.

1. $\frac{4}{5}, \frac{56}{65}, \frac{12}{13}$.
2. 156.4 rods.
3. 1344.
4. $50^{\circ} 56'$ or $129^{\circ} 4'$.
6. 90° .