

EXERCISE V.

1. 0.4472; 0.8944; 1.1180. 2. 1.1339; 0.6614; 1.5119.
3. 0; ∞ ; ∞ . 4. 1; $\sqrt{2}$; ∞ .
5. $1/\sin \varphi$. 6. 0.8660; 1.7321. 8. 0 or 1.

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. $8^\circ 14'$.