

I Solve for all missing parts. Find the area for each triangle.
Use Mollweide's formula #1 to verify your work.

$$\frac{a-b}{c} = \frac{\sin\frac{1}{2}(A-B)}{\cos\frac{1}{2}C}$$

- | | | | |
|----|-----------------|----------------|------------------|
| 1) | $B = 60^\circ$ | $C = 45^\circ$ | $a = 12$ |
| 2) | $A = 60^\circ$ | $B = 75^\circ$ | $c = 10\sqrt{3}$ |
| 3) | $A = 135^\circ$ | $B = 30^\circ$ | $c = 12$ |
| 3) | $B = 62^\circ$ | $C = 48^\circ$ | $a = 18.2$ |

II Solve for all missing parts. Find the area for each triangle.
Use Mollweide's formula #2 to verify your work.

$$\frac{a+b}{c} = \frac{\cos\frac{1}{2}(A-B)}{\sin\frac{1}{2}C}$$

- | | | | |
|----|--------------------|--------------------|------------|
| 1) | $A = 54^\circ$ | $B = 38^\circ$ | $c = 5$ |
| 2) | $A = 20^\circ 13'$ | $B = 81^\circ 26'$ | $a = 318$ |
| 3) | $A = 48^\circ 59'$ | $B = 76^\circ 03'$ | $a = 1002$ |
| 4) | $B = 79^\circ 15'$ | $C = 55^\circ 11'$ | $a = 1125$ |