

Unit #7: Extended Trigonometry

Lesson 3: Area of Triangles MA3A7

Find the area using the given data. Be sure to check for the ambiguous case.

1. $a = 24, b = 20, \gamma = 76^\circ$

2. $a = 17.3, \beta = 48^\circ, \gamma = 100^\circ$

3. $a = 30, b = 40, c = 60$

4. $a = 26, b = 34, \alpha = 25^\circ$

5. $\alpha = 30^\circ, \beta = 65^\circ, b = 25$

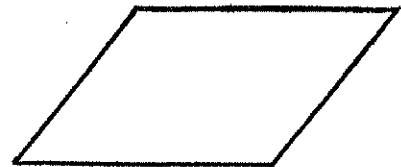
6. $a = 12, c = 16, \beta = 59^\circ$

7. $a = 14, b = 19, c = 23$

8. $\beta = 25^\circ, \gamma = 110^\circ, c = 14$

9. $a = 11, b = 12, \alpha = 60^\circ$

10. Find the area of a parallelogram that has a 65° angle and sides with length 8 and 15. [HINT: Divide the parallelogram into two equal triangles.]



11. Find the area of a rhombus that has perimeter 36 and an angle of 45° .

