Name: $\qquad$ Period: $\qquad$ Date: $\qquad$

## COLOR BY CODES law of sines



## Answer the questions. Color the "Christmas Kitty" according to your answers.

Refer to the triangle below and find the missing sides and angles. Round your answers to the nearest hundredth.


1. Angle $A=$ $\qquad$ (RED)
2. Angle $B=$ $\qquad$ (GREEN)
3. Side length $b=$ $\qquad$ (YELLOW)

Refer to the triangle below and find the missing sides, angles and its area. Round your answer to the nearest hundredth.

4. Angle $\mathrm{M}=$ $\qquad$ (RED)
5. Angle $\mathrm{N}=$ $\qquad$ (DARK BROWN)
6. Side length $\mathrm{n}=$ $\qquad$ m (LIGHT BLUE)
7. Area $=$ $\qquad$ $\mathrm{m}^{2}$ (LIGHT BROWN)
8. In a triangle $P Q R$, angle $P=45^{\circ}, P Q=5 \mathrm{~m}$, angle $R=60^{\circ}$. What is the length of the side $Q R$ ? Round your answer to the nearest hundredth. (PURPLE)

Length of side $\mathrm{QR}=$ $\qquad$ m
9. In a triangle $A B C$, angle $B=60^{\circ}, A C=10 \mathrm{~m}, A B=9 \mathrm{~m}$. What is the measure of angle $C$ ? Round your answer to the nearest hundredth. (LIGHT GREEN)

Measure of angle $\mathrm{C}=$ $\qquad$
10. Find the area of the triangle given below. Round your answer to the nearest hundredth. (LIGHT BLUE)


Area $=$ $\qquad$ $m^{2}$
11. Find the area of the triangle given below. Round your answer to the nearest hundredth. (ORANGE)


Area $=$ $\qquad$ $\mathrm{m}^{2}$
12. In a triangle $A B C, A B=8, A C=6$ and angle $A=60^{\circ}$. What is the area of this triangle? (PINK)

Area $=$ $\qquad$

