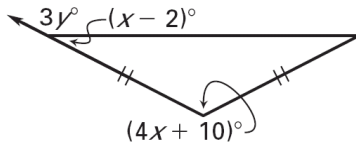


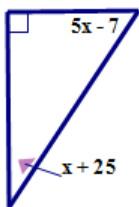
Why does Batman brush his teeth so often?

Solve each problem below. Find your answer in the answer column and notice the letter next to it. Write this letter in each box that contains the number of that problem. Keep working and you will discover the answer to the title question.

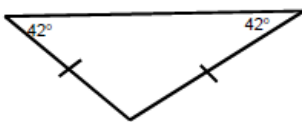
1. Find the value of x and y .



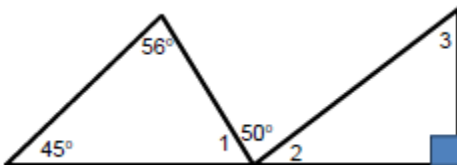
2. Find the value of x .



3. Please classify the triangle by its side lengths and its angle measures.

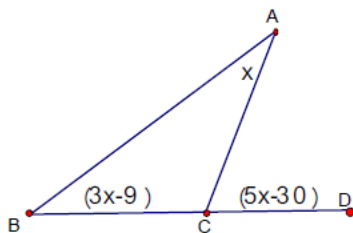


4. Please find $m\angle 1$, $m\angle 2$, $m\angle 3$.



5. In $\triangle ABC$, $m\angle A = 2(m\angle B)$ and $m\angle C = 3(m\angle B)$. Please find the measure of each angle.

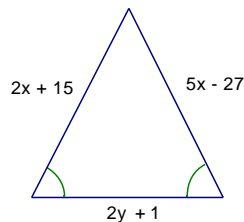
6. Please find $m\angle B$



7. The lengths of the sides of an equilateral triangle are $6x$, $10x - 24$, and $2x + 24$. Please find the perimeter of the triangle.

8. An isosceles triangle has a perimeter of 82 cm. The lengths of the legs of the triangle are $(x^2 - 38)$ cm and $(3x + 2)$ cm. Please find the length of the base of the triangle.

9. The perimeter of the triangle below is 113 units. Please find the values of x and y .



10. Please classify $\triangle ABC$ by its side lengths. Then determine if the triangle is a right triangle. Use the coordinate plane on the back side and make sure you show your work ☺
A(2, 3), B(4, 7), C(6, 1)

- (K) 65
- (O) 30, 60, 90
- (R) 108
- (I) 6
- (N) 29, 51
- (M) 4, 59
- (H) Isosceles obtuse
- (B) 14, 13
- (P) 54
- (G) 36, 72, 108
- (E) 79, 51, 39
- (L) 21
- (V) 30
- (A) 12
- (S) 26
- (T) Isosceles Right
- (M) Scalene Right

