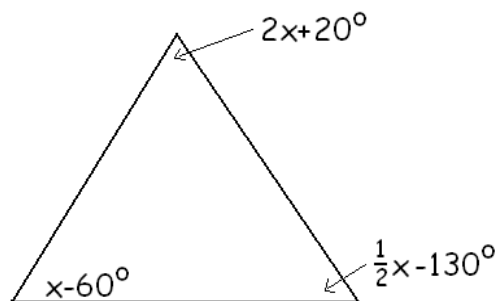
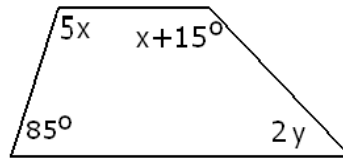


For problems 1-14, let $U = \{a, b, c, d, e, f, g\}$, $X = \{a, c, e, g\}$, $Y = \{a, b, c\}$, and $Z = \{b, c, d, e, f\}$.

1. Draw a Venn-diagram depicting these sets together.
2. Find $X \cap Y$.
3. Find X' .
4. Find $Y' \cap Z'$.
5. Find $(Y \cup Z)'$.
6. Find $Y \cup Y'$.
7. Find $X \cap X'$.
8. Find $X \cup (Y \cap Z)$.
9. Find $(Y \cap Z') \cup X$.
10. Find $(Z \cap X') \cup (Z \cap Y')$.
11. How many proper subsets does $X \cup Y$ have?
12. List all subsets of X .
13. List all four-element subsets of Z .
14. List all two-element subsets of U .
15. How many different 7-digit number can be formed using the digits 1, 2, 3, 4, 5, 6, and 7, without repetition? (Don't try to list them!)
16. The complement of an angle is 15° more than twice the angle. Find this angle.
17. Find x based on the picture below.



18. Find x and y , based on the picture below.



19. Find the sum of the inner angles in a polygon of 15 sides.

20. Find the measure of an inner angle in a regular polygon of 15 sides.