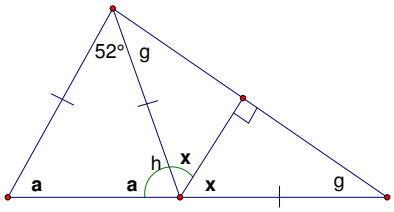
1. $\boxed{a = 80}$
2. $\boxed{b = 43}$
3. $\boxed{c = 77}$
4. $\boxed{d = 37}$
5. $\boxed{e = 63}$
6. $\boxed{f = 83}$
7. First, note that the arcs in the problem do not mean all the angles are the same. Second, notice that $\angle h$ is the combination of two angles.

   Now let's label all the angles. The two angles marked a are the same because it's an isosceles triangle. I put g down in the bottom corner because it is also an isosceles triangle. Then, we can see that the two angles marked x are the same because each triangle has $g + x + 90°$. So now we can begin angle chasing.

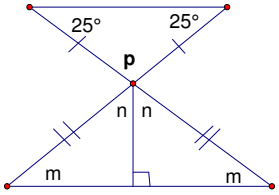


   Since the a's are in an isosceles triangle, we know that $a + a + 52 = 180$, so $a + a = 128$, so $a = 64$.

   Now we can find what $x + x$ is because that angle is on a straight line with a. So $64 + x + x = 180$, so $x + x = 116$, so $x = 58$.

   Now we can find h, because $h = a + x = 64 + 58 = 122$. We can also find g, because $g + 90 + 58 = 180$, so $g = 32$. $\boxed{g = 32, h = 122}$

8. First, mark the angles that are the same because of isosceles triangles.



   Now we can solve for p, because $25+25+p = 180$, so $p = 130$. Now we can solve for n, because $n+n = p = 130$. So $n = 65$. Now we can solve for m, because $m+n+90 = m+65+90 = 180$, so $m = 25$. $\boxed{m = 25, n = 65}$

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