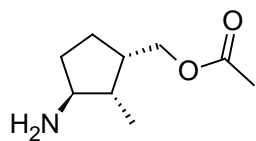
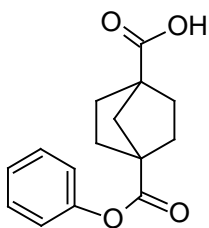


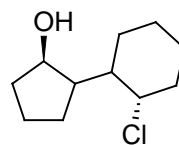
1. Pomenujte:



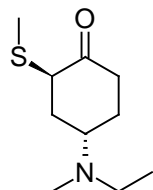
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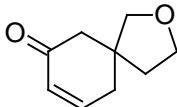
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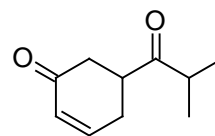
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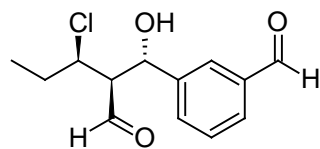
4



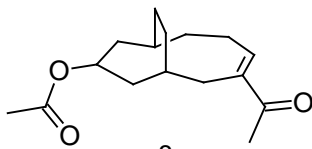
5



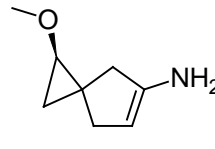
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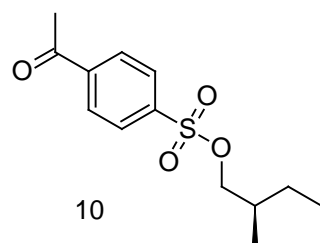
7



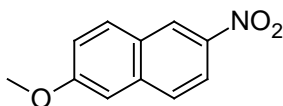
8



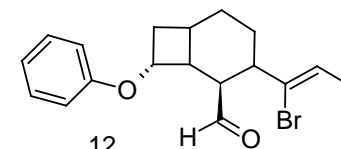
9



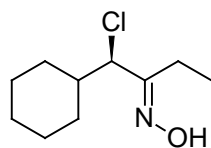
10



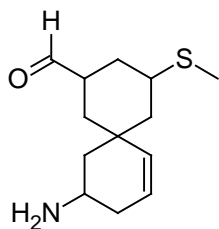
11



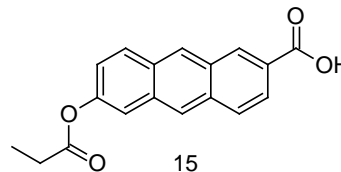
12



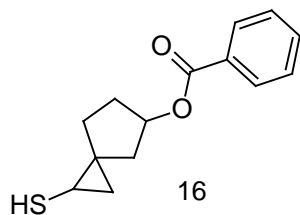
13



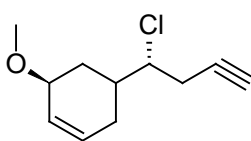
14



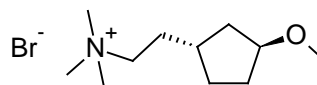
15



16

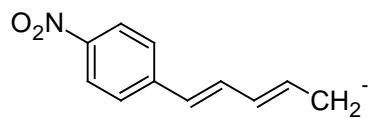


17

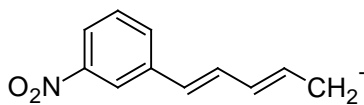


18

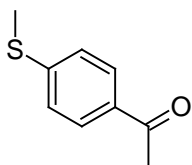
2. Nakreslite rezonančné štruktúry:



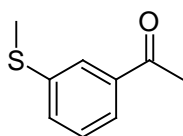
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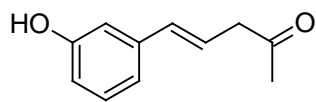
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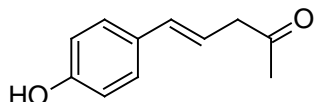
3



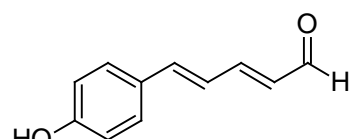
4



5

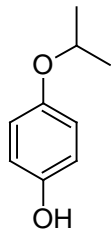


6

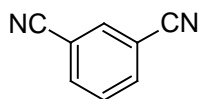


7

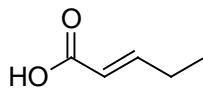
3. Uved'te, kde očakávate atak nukleofilu, prípadne elektrofilu:



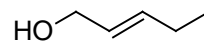
1



2

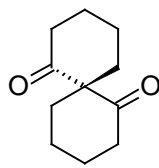
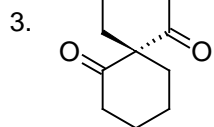
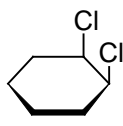
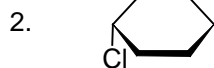
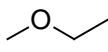


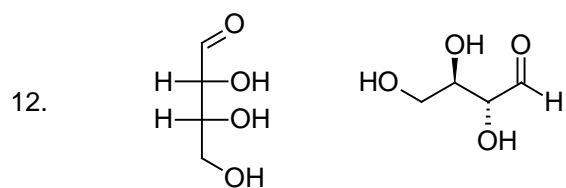
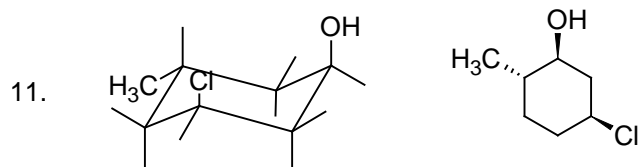
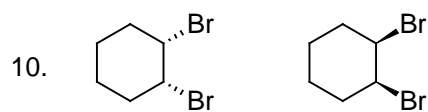
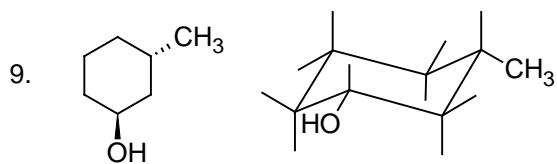
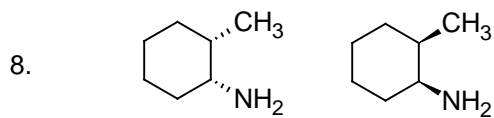
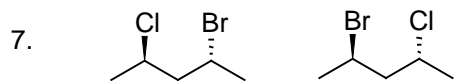
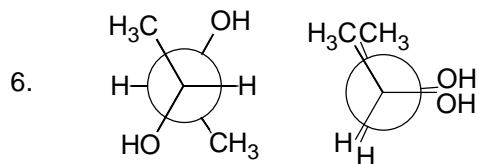
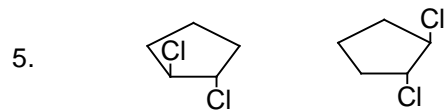
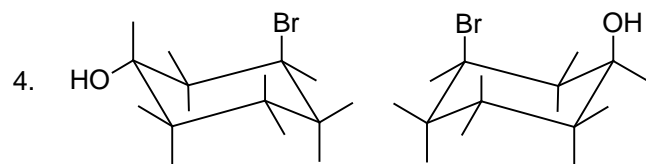
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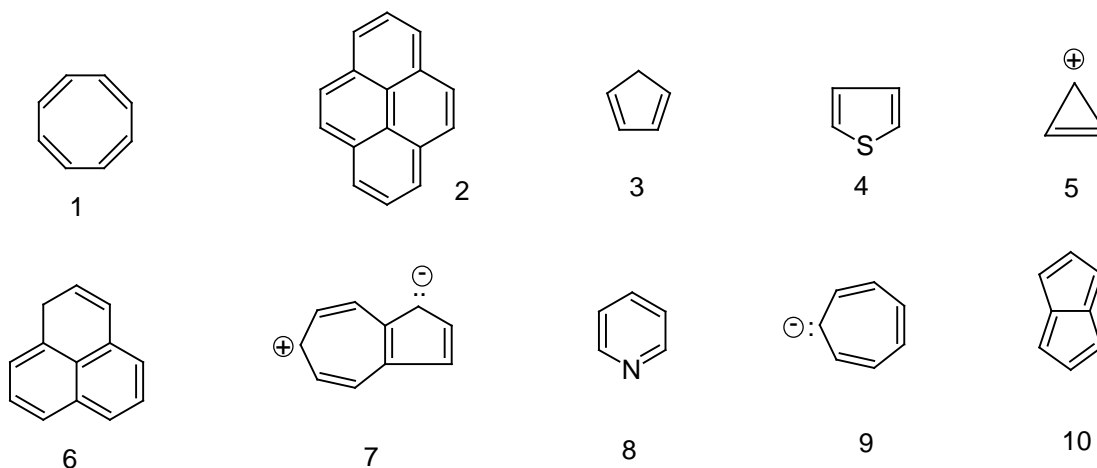
4

4. Rozhodnite o aké stereoizoméry sa jedná, prípadne či sú dvojice rovnaké. Budú uvedené geometrické izoméry otáčať rovinu polarizovaného svetla?





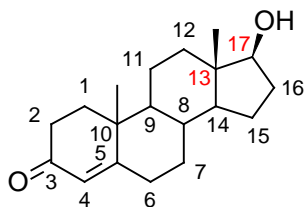
5. Zakrúžkujte aromatické molekuly:



6. Nakreslite najstabilnejší konformér nasledujúcich molekúl:

- (1*S*,2*S*)-1,2-dibrom-1-methylcyklohexan
- (1*R*,3*R*)-3-*tert*-butylcyklohexanol
- (1*R*,2*S*)-2-ethylcyklohexanamin

7. Vyznačte všetky stereogénne centrá na uhlíku a zároveň vyjadrite absolútnu konfiguráciu na farebne vyznačených pozíciách:



8. Vyberte **nesprávne** tvrdenie:

- $\pi$ -väzba ethenu je tvorená prekryvom p-orbitálov uhlíkových atómov.
- Väzby v ethene zvierajú uhol  $109^\circ$ .
- Ethen je planárny.
- Uhlíkové atómy v ethene sú *sp*-hybridizované.
- C-H väzby sú tvorené prekryvom s-orbitálov vodíka a *sp*-hybridizovaných orbitálov uhlíku.

9. Koľko geometrických izomérov nájdeme u nasledujúcej molekuly? Aká je konfigurácia na dvojných väzbách A, B, C, D? Pomenujte molekulu.

