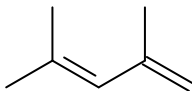
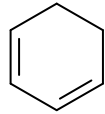
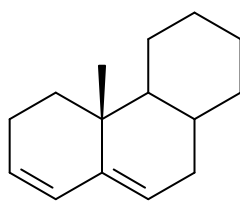
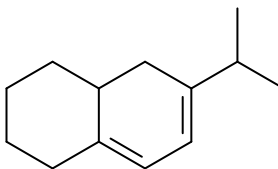
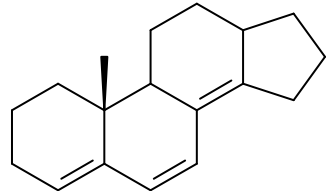
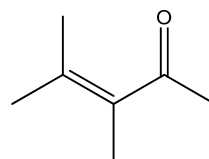
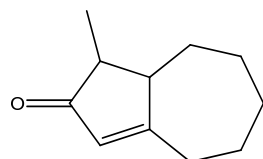
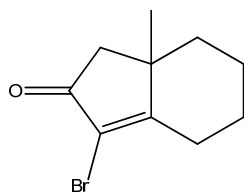


1. Using Woodward-Fieser's rule, calculate wavelengths of maximum UV absorption for following compounds:

a)  <table><tr><td>Base value:</td><td>217 nm</td></tr><tr><td>alkyl groups:</td><td>3x5 = 15 nm</td></tr><tr><td>calculated:</td><td>232 nm</td></tr><tr><td>observed:</td><td>234 nm</td></tr></table>	Base value:	217 nm	alkyl groups:	3x5 = 15 nm	calculated:	232 nm	observed:	234 nm	b)  <table><tr><td>Base value:</td><td>253 nm</td></tr><tr><td>alkyl groups:</td><td>2x5 = 10 nm</td></tr><tr><td>calculated:</td><td>263 nm</td></tr><tr><td>observed:</td><td>256 nm</td></tr></table>	Base value:	253 nm	alkyl groups:	2x5 = 10 nm	calculated:	263 nm	observed:	256 nm	c)  <table><tr><td>Base value:</td><td>214 nm</td></tr><tr><td>alkyl groups:</td><td>3x5 = 15 nm</td></tr><tr><td>Exocyclic double bond:</td><td>5 nm</td></tr><tr><td>calculated:</td><td>234 nm</td></tr><tr><td>observed:</td><td>235 nm</td></tr></table>	Base value:	214 nm	alkyl groups:	3x5 = 15 nm	Exocyclic double bond:	5 nm	calculated:	234 nm	observed:	235 nm
Base value:	217 nm																											
alkyl groups:	3x5 = 15 nm																											
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Exocyclic double bond:	5 nm																											
calculated:	234 nm																											
observed:	235 nm																											
d)  <table><tr><td>Base value:</td><td>253 nm</td></tr><tr><td>alkyl groups or ring residues:</td><td>4x5 = 20 nm</td></tr><tr><td>Exocyclic double bond:</td><td>5 nm</td></tr><tr><td>calculated:</td><td>278 nm</td></tr><tr><td>observed:</td><td>275 nm</td></tr></table>	Base value:	253 nm	alkyl groups or ring residues:	4x5 = 20 nm	Exocyclic double bond:	5 nm	calculated:	278 nm	observed:	275 nm	e)  <table><tr><td>Base value:</td><td>214 nm</td></tr><tr><td>alkyl groups or ring residues:</td><td>5x5 = 25 nm</td></tr><tr><td>Exocyclic double bond:</td><td>3x5 = 15 nm</td></tr><tr><td>extra conjugation:</td><td>1x30 = 30 nm</td></tr><tr><td>calculated:</td><td>284 nm</td></tr><tr><td>observed:</td><td>283 nm</td></tr></table>	Base value:	214 nm	alkyl groups or ring residues:	5x5 = 25 nm	Exocyclic double bond:	3x5 = 15 nm	extra conjugation:	1x30 = 30 nm	calculated:	284 nm	observed:	283 nm					
Base value:	253 nm																											
alkyl groups or ring residues:	4x5 = 20 nm																											
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f)  <table><tr><td>Base value:</td><td>215 nm</td></tr><tr><td>α-alkyl groups or ring residues:</td><td>1x10 = 10 nm</td></tr><tr><td>β-alkyl groups or ring residues:</td><td>2x12 = 24 nm</td></tr><tr><td>calculated:</td><td>249 nm</td></tr><tr><td>observed:</td><td>249 nm</td></tr></table>	Base value:	215 nm	α-alkyl groups or ring residues:	1x10 = 10 nm	β-alkyl groups or ring residues:	2x12 = 24 nm	calculated:	249 nm	observed:	249 nm	g)  <table><tr><td>Base value:</td><td>202 nm</td></tr><tr><td>five membered ring parent enone</td><td></td></tr><tr><td>β-alkyl groups or ring residues:</td><td>2x12 = 24 nm</td></tr><tr><td>Exocyclic double bond:</td><td>1x5 = 5 nm</td></tr><tr><td>calculated:</td><td>231 nm</td></tr><tr><td>observed:</td><td>226 nm</td></tr></table>	Base value:	202 nm	five membered ring parent enone		β-alkyl groups or ring residues:	2x12 = 24 nm	Exocyclic double bond:	1x5 = 5 nm	calculated:	231 nm	observed:	226 nm					
Base value:	215 nm																											
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observed:	226 nm																											

h)



Base value:		202 nm
five membered ring parent enone		
α -Br		25 nm
β -alkyl	2x12	24 nm
groups or ring residues:		
Exocyclic	1x5	5 nm
double bond:		
calculated:		256 nm
observed:		251 nm