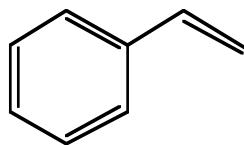
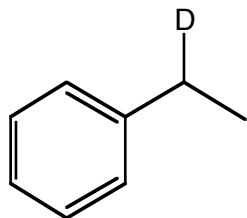


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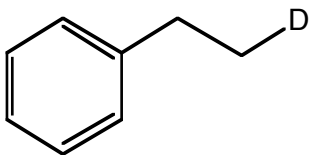
(a) Devise syntheses for the following molecules starting from styrene (**1**), and the list of allowable reagents.



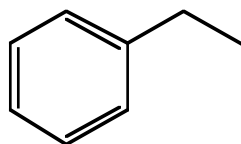
**1**



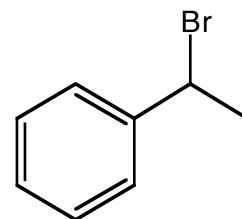
(a)



(b)



(c)

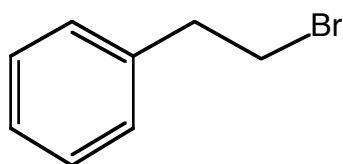


(d)

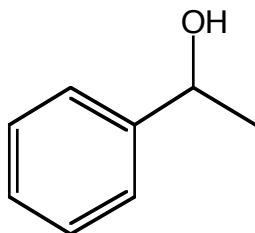
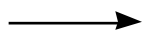
Allowable reagents: Li, Mg, HBr, DBr, H<sub>2</sub>O, D<sub>2</sub>O, H<sub>2</sub>SO<sub>4</sub>, D<sub>2</sub>SO<sub>4</sub>, H<sub>3</sub>N, D<sub>3</sub>N, HN<sub>3</sub>, DN<sub>3</sub>,

CH<sub>3</sub>OH, CD<sub>3</sub>OH, CH<sub>3</sub>I, KOH, NaH, DMF, DMSO, (CH<sub>3</sub>)COD, (CH<sub>3</sub>)<sub>3</sub>CO<sup>-</sup> +K<sup>+</sup>, DTox, DFense, Dvious.

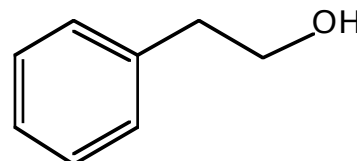
(b) Starting from **2** devise syntheses of the following two alcohols:



**2**

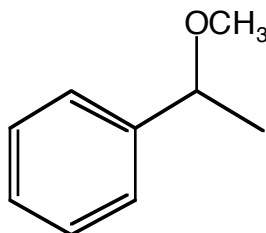


(e)



(f)

(c) Devise two ways of making **3**.



**3**

(g,h)