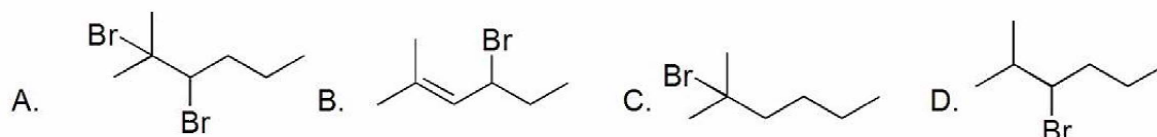
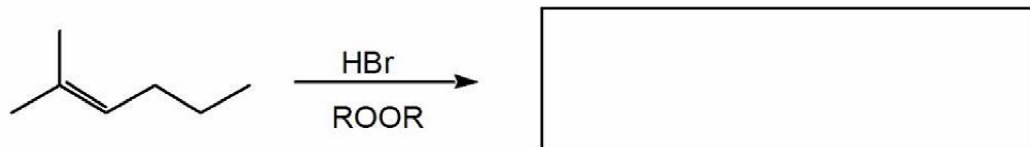


radical_practice_problems

Student: _____

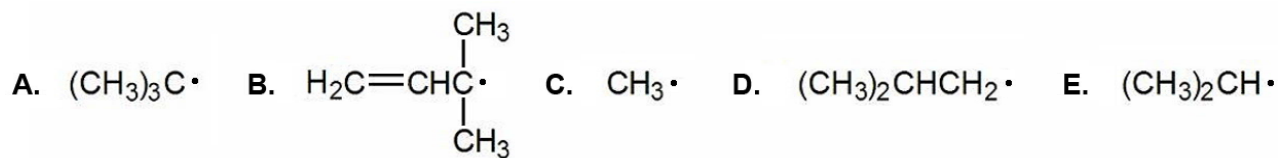
1. Determine the product(s).



E. A and B

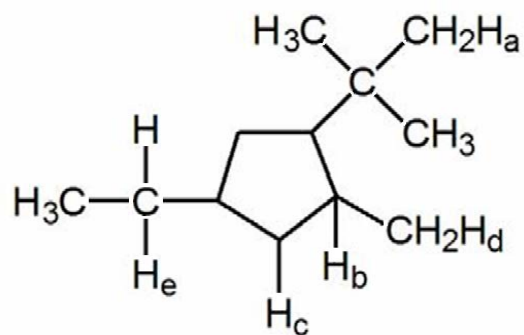
- A. A
- B. B
- C. C
- D. D
- E. E

2. Arrange the following radicals in order of decreasing stability



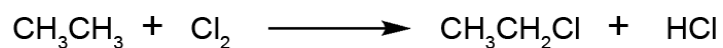
- A. $a > b > c > d > e$
- B. $b > a > e > d > c$
- C. $a > b > e > d > c$
- D. $b > a > c > d > e$
- E. $c > a > b > e > d$

3. Which of the labeled hydrogens is most easily abstracted in a free radical bromination reaction?

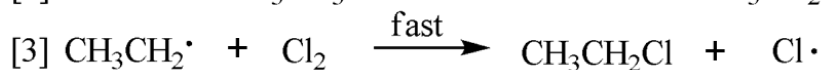
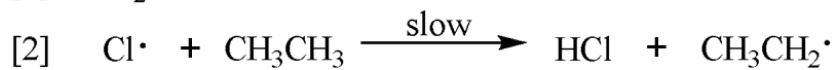
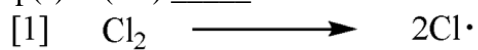


- A. H_a
- B. H_b
- C. H_c
- D. H_d
- E. H_e

4. A possible reaction of ethane with chlorine:

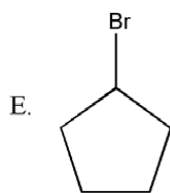
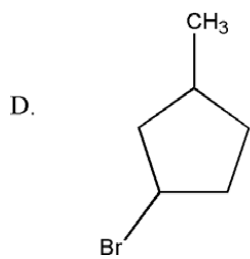
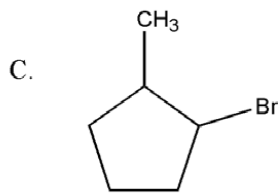
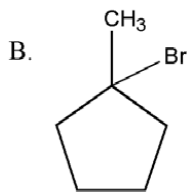
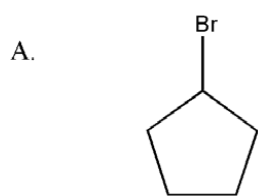
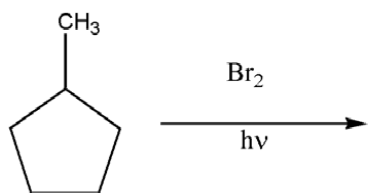


This reaction could conceivably occur by the following chain mechanisms [1], [2], and [3]. The chain initiating step(s) is (are) _____.



- A. [1]
- B. [2]
- C. [3]
- D. [1] and [2]
- E. [2] and [3]

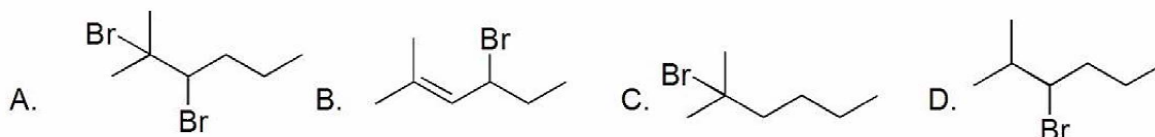
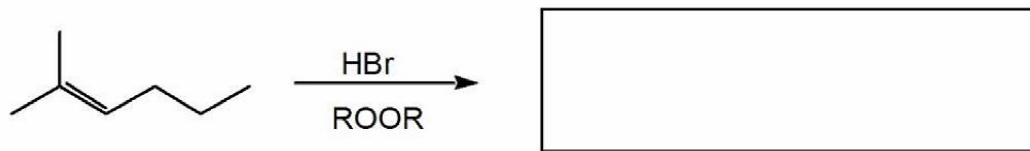
5. Select the major product in the following reaction.



- A. A
- B. B
- C. C
- D. D
- E. E

radical_practice_problems Key

1. Determine the product(s).

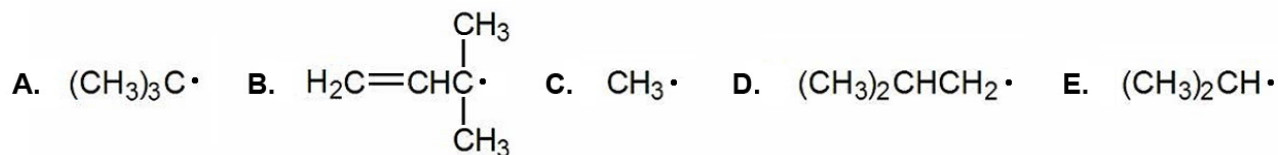


E. A and B

- a. A
- b. B
- c. C
- D. D**
- e. E

Smith - 015 Chapter... #3

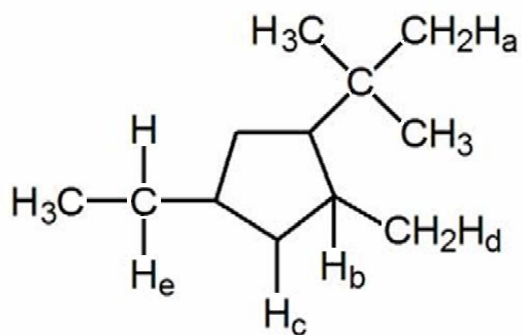
2. Arrange the following radicals in order of decreasing stability



- a. $a > b > c > d > e$
- B. $b > a > e > d > c$**
- c. $a > b > e > d > c$
- d. $b > a > c > d > e$
- e. $c > a > b > e > d$

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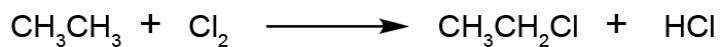
3. Which of the labeled hydrogens is most easily abstracted in a free radical bromination reaction?



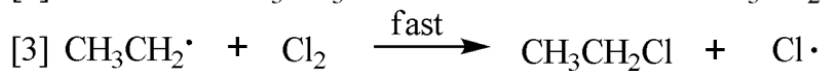
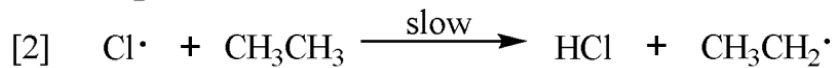
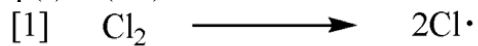
- a. H_a
- B.** H_b
- c. H_c
- d. H_d
- e. H_e

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4. A possible reaction of ethane with chlorine:



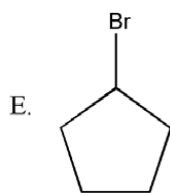
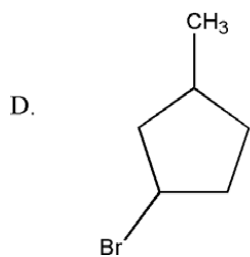
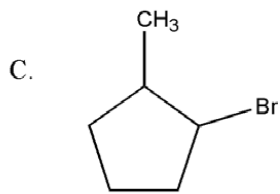
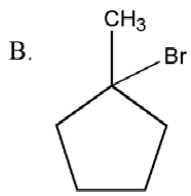
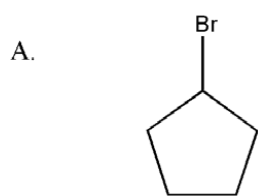
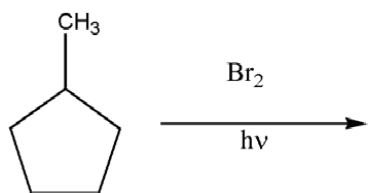
This reaction could conceivably occur by the following chain mechanisms [1], [2], and [3]. The chain initiating step(s) is (are) _____.



- A.** [1]
- b. [2]
- c. [3]
- d. [1] and [2]
- e. [2] and [3]

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5. Select the major product in the following reaction.



- a. A
- b. B**
- c. C
- d. D
- e. E

radical_practice_problems Summary

<u>Category</u>	<u># of Questions</u>
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