

Name (print clearly): _____

Student ID (print clearly; 1 digit per underline): _____

1. Show the first three substitutions for $(\lambda x . x x) (\lambda x . x x)$

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2. What idea does $(\lambda x . x x) (\lambda x . x x)$ encode?

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Given this definition of RECUR

$$\lambda f . (\lambda x . f (x x)) (\lambda x . f(x x))$$

3. Define $(\lambda x . x x) (\lambda x . x x)$ from Question 1 in terms of RECUR

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