**IN-CLASS PRACTICE PROBLEMS**

(work in groups of 2-3 people)

1. Suppose Bob’s utility for soda (*S*) and chips (*C*) can be represented as $U\left(S,C\right)=S^{0.5}C^{0.5}$.
	1. Fill in the table below and find the amount of soda that would keep Bob at a **utility level of 9**. Hint: Rearrange the utility equation to get *S* alone on the left hand side and then plug in the various values of *C*.

|  |  |  |
| --- | --- | --- |
| *U(S,C)* | *C* | *S* |
| 9 | 81 |  |
| 9 | 27 |  |
| 9 | 9 |  |
| 9 | 3 |  |
| 9 | 1 |  |

* 1. Draw the indifference curve that yields a utility level of 9 using the above table. Label it.

*C*

*S*

* 1. What is Bob’s marginal rate of substitution (MRS) = $\frac{dC}{dS}=-\frac{MU\_{S}}{MU\_{C}}$ ?