## Word Problem: line-length

**Directions**: Write a function called 'line-length', which takes in two numbers and returns the **positive difference** between them. It should always subtract the smaller number from the bigger one. If they are equal, it should return zero.

| Contract and Purpose Statem                | lent                       |                     |                            |        |
|--|----------------------------|---------------------|----------------------------|--------|
| very contract has three parts              |                            |                     |                            |        |
| line-length :                              | Numbe                      | er Number           | ->                         | Number |
| function name                              | de                         | omain               |                            | range  |
| Consumes two numbers, and                  | produces the positive      | difference between  | them                       |        |
|  | what doe                   | es the function do? |                            |        |
| Examples                                   |                            |                     |                            |        |
| Vrite some examples, then circle and lab   | el what changes            |                     |                            |        |
| EXAMPLE (line-length                       | 10 5                       | ) (- 10 5)          |                            | )      |
| function name                              | input(s)                   |                     | what the function produces |        |
| EXAMPLE (line-length                       | 2 8                        | ) (- 8 2)           |                            | )      |
| function name                              | input(s)                   |                     | what the function produces |        |
| Definition                                 |                            |                     |                            |        |
| Vrite the definition, giving variable name | s to all your input values |                     |                            |        |
| define (line-length                        | ab)                        |                     |                            |        |
| function name                              | variable(s)                |                     |                            |        |
| (cond                                      |                            |                     |                            |        |
|  |                            |                     |                            |        |
| [(> a b)                                   |                            | (- a b)             |                            | ]      |
|  |                            |                     |                            |        |
| [(< a b)                                   |                            | (- b a)             |                            | ]      |
|  |                            |                     |                            |        |
| ))   |                            |                     |                            |        |
|  |                            |                     |                            |        |

what the function does with those variable(s)