Philosophical Ideas

Hypatia
Elisabeth
Simone
Ayn
Arendt
A Process

\[ \text{pid} = \text{spawn}(\text{fn} \rightarrow \text{do\_something} \text{ end}) \]
A Bunch of Messages

receive() → send()
All together

```elixir
iex> parent = self()  
#PID<0.41.0>

iex> spawn fn -> send(parent, {:hello, self()}) end  
#PID<0.48.0>

iex> receive do  
...> {:hello, pid} -> "Got hello from #{inspect pid}"  
...> end
"Got hello from #PID<0.48.0>"
```
Keeping the State

New value → Set → receive() → Looping value → Get → send() → Current value
def start do
  spawn_link(fn -> loop(%{}) end)
end

defp loop(map) do
  receive do
    {:get, key, caller} ->
      send(caller, Map.get(map, key))
      loop(map)
    {:put, key, value} ->
      loop(Map.put(map, key, value))
  end
end
A Philosopher

Try to acquire both chopsticks

dreaming

waiting

donedeath

Full strength

init

eating
5 Philosophers at a Table

Arendt
Ayn
Elisabeth
Simone
Hypatia
Left and Then Right

First grab the left chopstick, then the right one. 

*What happens if everyone does it at the same time?*
Good luck!