

Helper Functions

Both of the following update-game functions behave the exact same way. One makes use of two helper functions, and the other performs the same work without helpers. In the space below, write which version of update-game you prefer, and why.

A

```
# update-game : GameState -> GameState
# If the player and danger collide, move player to the
# bottom of the screen and decrease the score
fun update-game(g):
  if num-sqrt(num-sqr(g.playerx - g.dangerx) +
              num-sqr(g.playery - g.dangery)) < 50:
    game(g.playerx, 0, g.dangerx, g.dangery, g.score - 20)
  else: g
  end
end
```

B

```
# distance: Number, Number, Number, Number -> Number
# Consumes x and y coordinates of 2 characters and produces the #
# distance between them
fun distance(px, py, cx, cy):
  num-sqrt(num-sqr(px - cx) + num-sqr(py - cy))
end

# is-collision: Number, Number, Number, Number -> Boolean
# Produces true if the distance between player and
# another character is less than 50 pixels
fun is-collision(px, py, cx, cy):
  distance(px, py, cx, cy) < 50
end

# update-game : GameState -> GameState
# If the player and danger collide, move player to the
# bottom of the screen and decrease the score
fun update-game(g):
  if is-collison(g.playerx, g.playery, g.dangerx, g.dangery):
    game(g.playerx, 0, g.dangerx, g.dangery, g.score - 20)
  else: g
  end
end
```