

Detecting Helper Functions

Below is a function used in a sample videogame, which contains a lot of repeated code:

```
# next-state-tick : GameState -> GameState
fun next-state-tick(g):
  if g.playerx < -50: game(700,
                          g.playery,
                          g.dangerx,
                          g.targetx,
                          g.score)
  else if g.dangerx < -50: game(g.playerx,
                              g.playery,
                              700,
                              g.targetx,
                              g.score)
  else if g.targetx < -50: game(g.playerx,
                              g.playery,
                              g.dangerx,
                              700,
                              g.score)
  else: g
  end
end
```

Write the contract and purpose statement for a helper function you could write in order to make the code shorter and easier to read.

_____ : _____ -> _____

Detecting Helper Functions

Below is a function used in a sample videogame, which contains a lot of repeated code:

```
# draw-state : GameState -> Image

fun draw-state(g):
  if g.level == 1: put-image(PLAYER-IMG1,
                             g.playerx, g.playery,
                             BACKGROUND)
  else if g.level == 2: put-image(PLAYER-IMG2,
                                  g.playerx, g.playery,
                                  BACKGROUND)
  else if g.level == 3: put-image(PLAYER-IMG3,
                                  g.playerx, g.playery,
                                  BACKGROUND)
  else: g
  end
end
```

Write the contract and purpose statement for a helper function you could write in order to make the code shorter and easier to read.

_____ : _____ -> _____
