You're working for a public health organization that has been studying malaria prevention in a rural area. Your team has collected data on which people have been hit with malaria cases, and discovered that people who have mosquito nets and either live 1000 feet from the lake or have had malaria at least 3 times are at low risk for getting sick.

You want to write a function that takes three inputs about a person: the distance (in feet) from the lake to their house, whether they have mosquito nets, and how many times they have had malaria before. The function will return a Boolean indicating whether they are low risk.

```
fun low-risk1(feet-to-lake :: Number, have-net :: Boolean, prev-cases :: Number)
  -> Boolean:
  doc: "determine risk based on distance to water, having nets, and prior cases"
  if have-net:
    if prev-cases >= 3:
      true
    else if feet-to-lake > 1000:
      true
    else:
      false
    end
  else:
    false
  end
where:
  low-risk1(20, true, 0) is false
  low-risk1(20, false, 0) is false
  low-risk1(20, true, 5) is true
  low-risk1(2000, true, 0) is true
  low-risk1(2000, false, 7) is false
end
```

```
fun low-risk2(feet-to-lake :: Number, have-net :: Boolean, prev-cases :: Number)
  -> Boolean:
  doc: "determine risk based on distance to water, having nets, and prior cases"
  if have-net:
    if (prev-cases >= 3) or (feet-to-lake > 1000):
      true
    else:
      false
    end
  else:
    false
  end
end
```

```
fun low-risk3(feet-to-lake :: Number, have-net :: Boolean, prev-cases :: Number)
  -> Boolean:
  doc: "determine risk based on distance to water, having nets, and prior cases"
  have-net and
  ((prev-cases >= 3) or (feet-to-lake > 1000))
end
```