A False Inequality

Verification with Monte Carlo

```
In[●]:= r := RandomInteger[{1, 10}, 3]
```

In[ ]:= `X = Table[a = r;`
        `b = r; Sign[Total[a] - Total[b]] Sign[Total[a^(1/p)] - Total[b^(1/p)]], {10^6}] /. p → 2 //`
        `Histogram`

Out[ ]=