Math 260 Take home exam

5. There are distinct integers m and n such that $\frac{1}{m} + \frac{1}{n}$ is an integer

Counter example:

Let $m = -1$ and $n = 1$ be distinct integers

$$\frac{1}{m} + \frac{1}{n} = \frac{1}{-1} + \frac{1}{1} = 0$$

0 is an integer

$\therefore \frac{1}{m} + \frac{1}{n}$ is an integer