① $\sqrt{2} = a/b$

$2 = a^2/b^2$

$a^2 = 2a^2$

$a = 2k$

$2 = (2k)^2/b^2$

$2 = 4k^2/b^2$

$2b^2 = 4k^2$

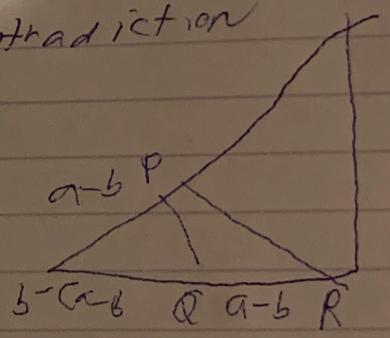
$b^2 = 2k^2$

b is even which contradiction

$2 \sqrt{b^2+b^2} = b\sqrt{2} = a$

$\sqrt{2} = a/b$

a-b



$b-(a-b) = 2b-a$

$\sqrt{2} = 2b/a\ /(a-b)$

irrational

③ $29/16 = 29 + \cfrac{1}{\frac{16}{16-1}}$

$R\ \frac{k-1}{kk} = nk + \cfrac{}{nk+1+\frac{1}{n}}$

④ $32/19 = 32 + \cfrac{1}{\frac{19}{19-1}}$

(7) $1+\sqrt{2} = 1 + \cfrac{1}{2 + \cfrac{1}{2 + \cfrac{1}{2 + \cfrac{1}{2 + \cdots}}}}$

(8) $\sqrt{3} = 1 + \cfrac{1}{1 + \cfrac{1}{2 + \cfrac{1}{1 + \cfrac{1}{2 + \cfrac{1}{1 + \cfrac{1}{2 + \cdots}}}}}}$