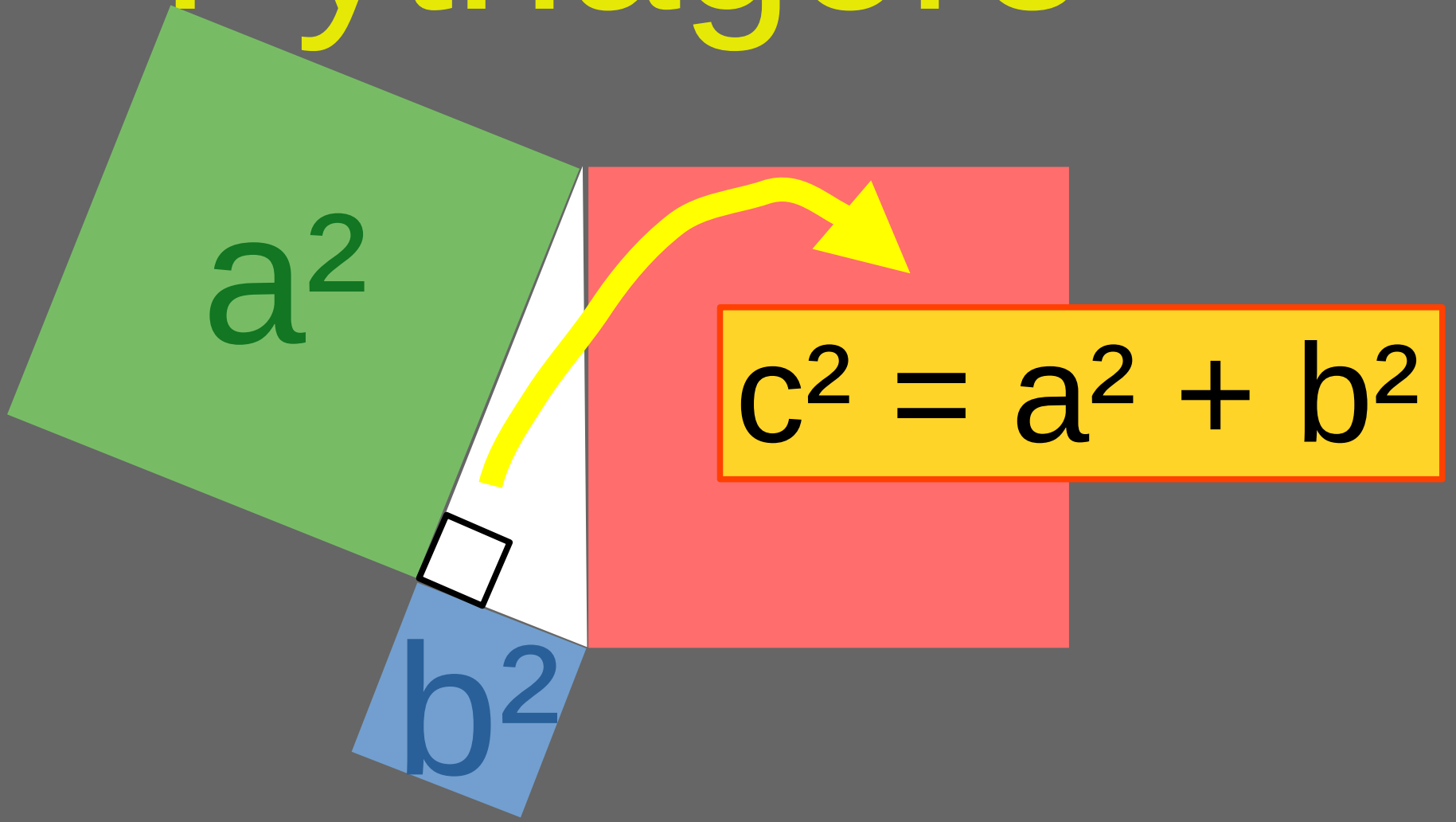
Questions Flash

*Pythagore et **fractions***

Rappels :

Théorème de Pythagore



Fractions : *même dénominateur* :

$$\frac{a}{c} + \frac{b}{c} = \frac{a+b}{c}$$

Fractions : *même dénominateur* :

$$\frac{a}{c} - \frac{b}{c} = \frac{a-b}{c}$$

En piste !

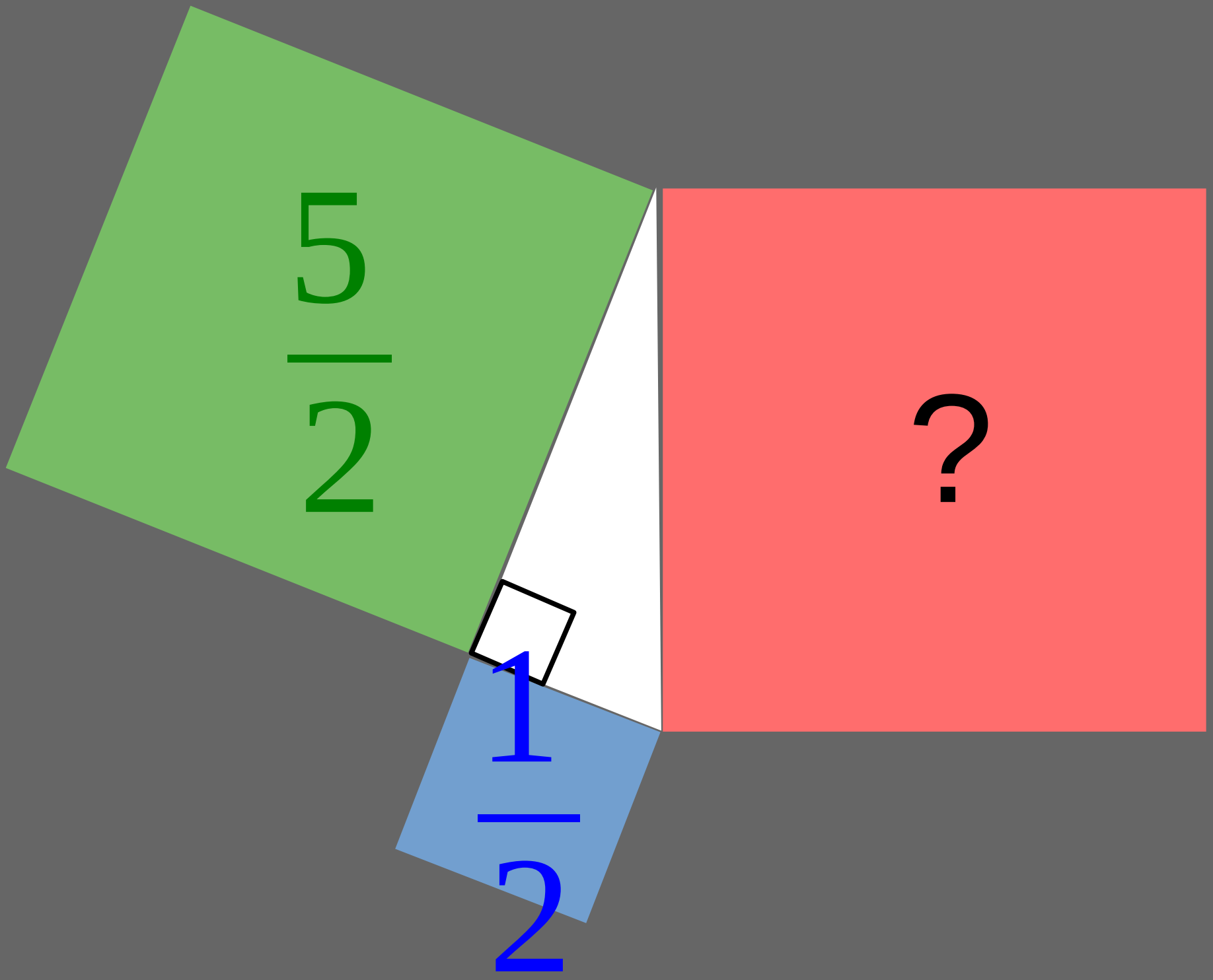
Ting

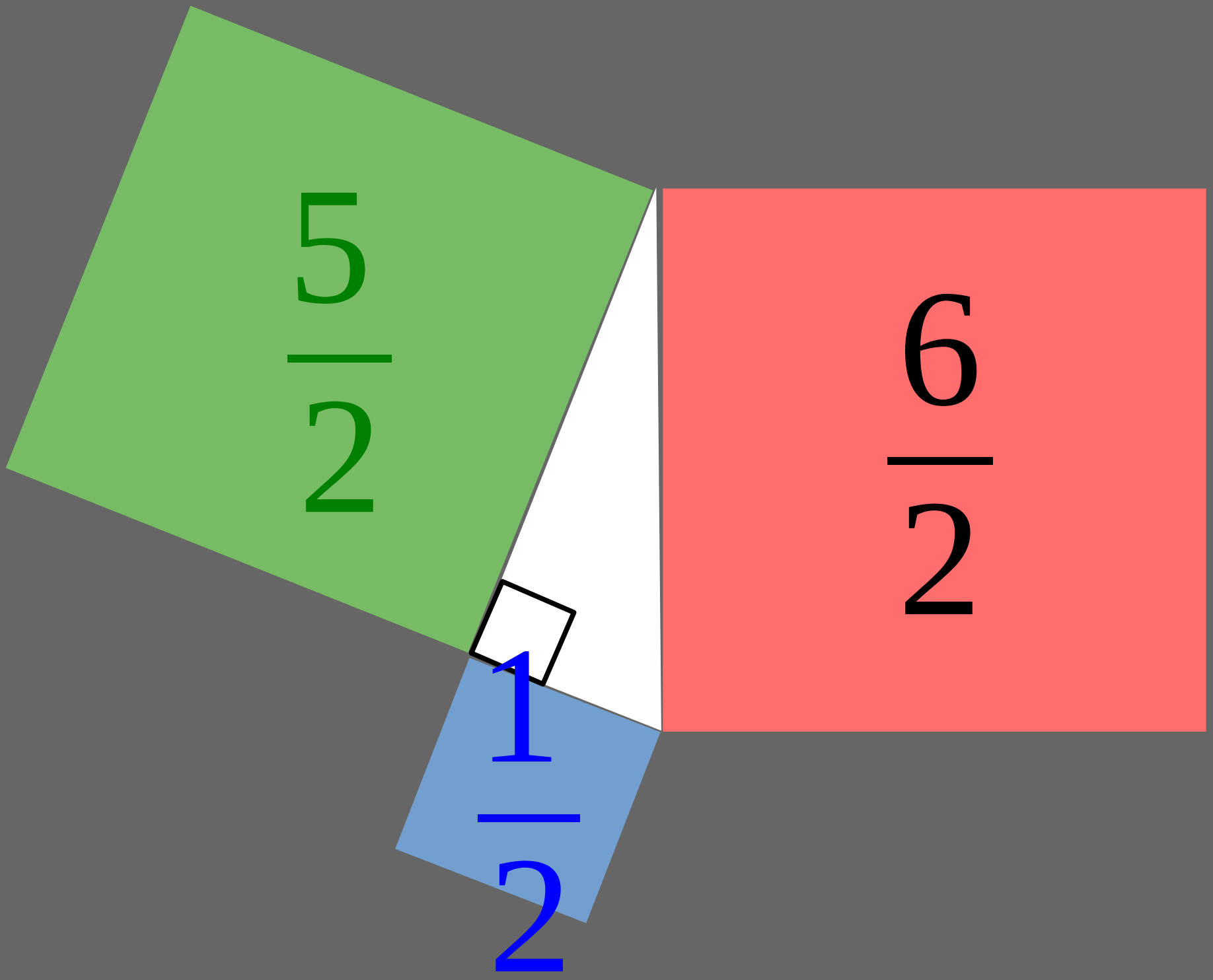
Ting

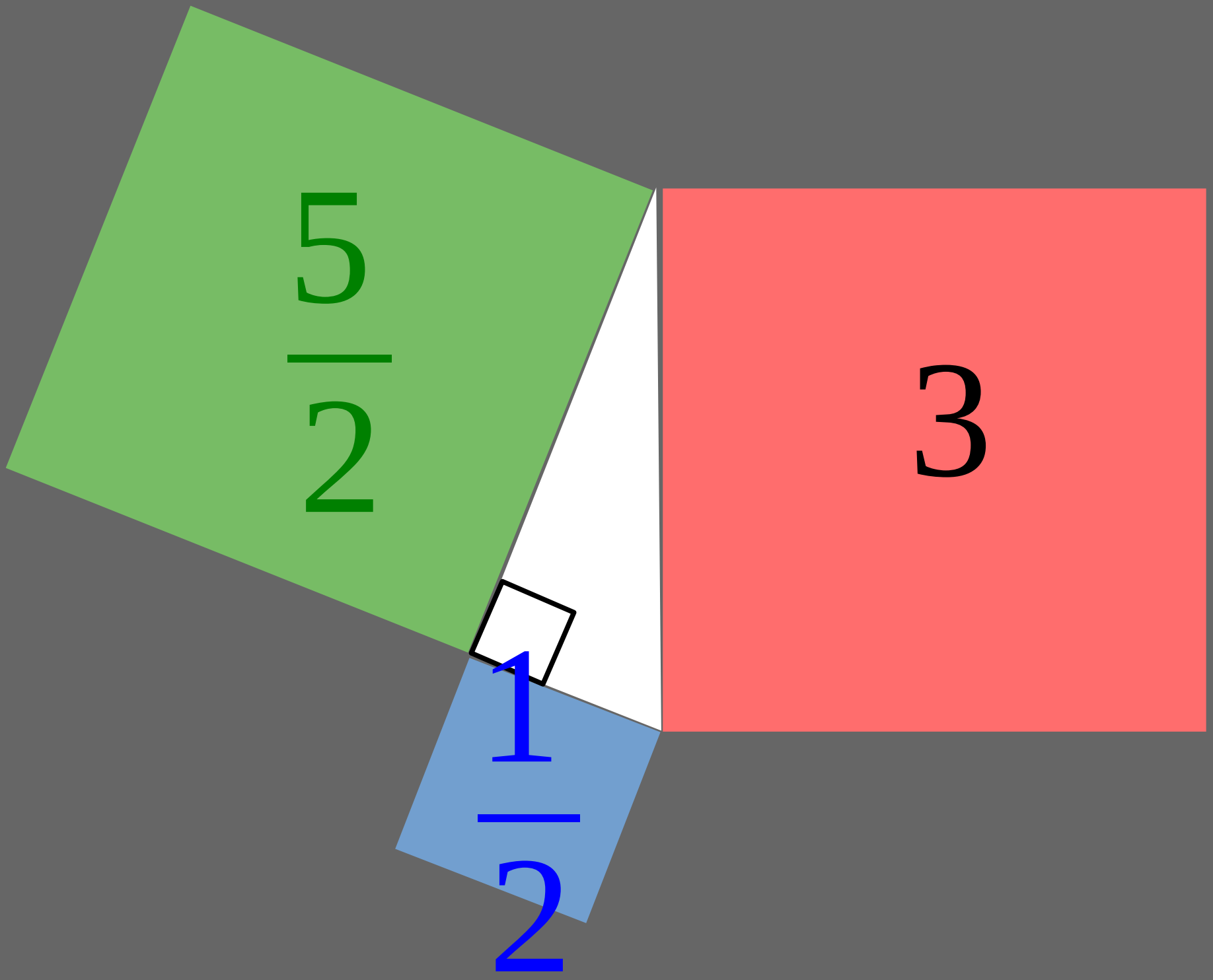
Ting

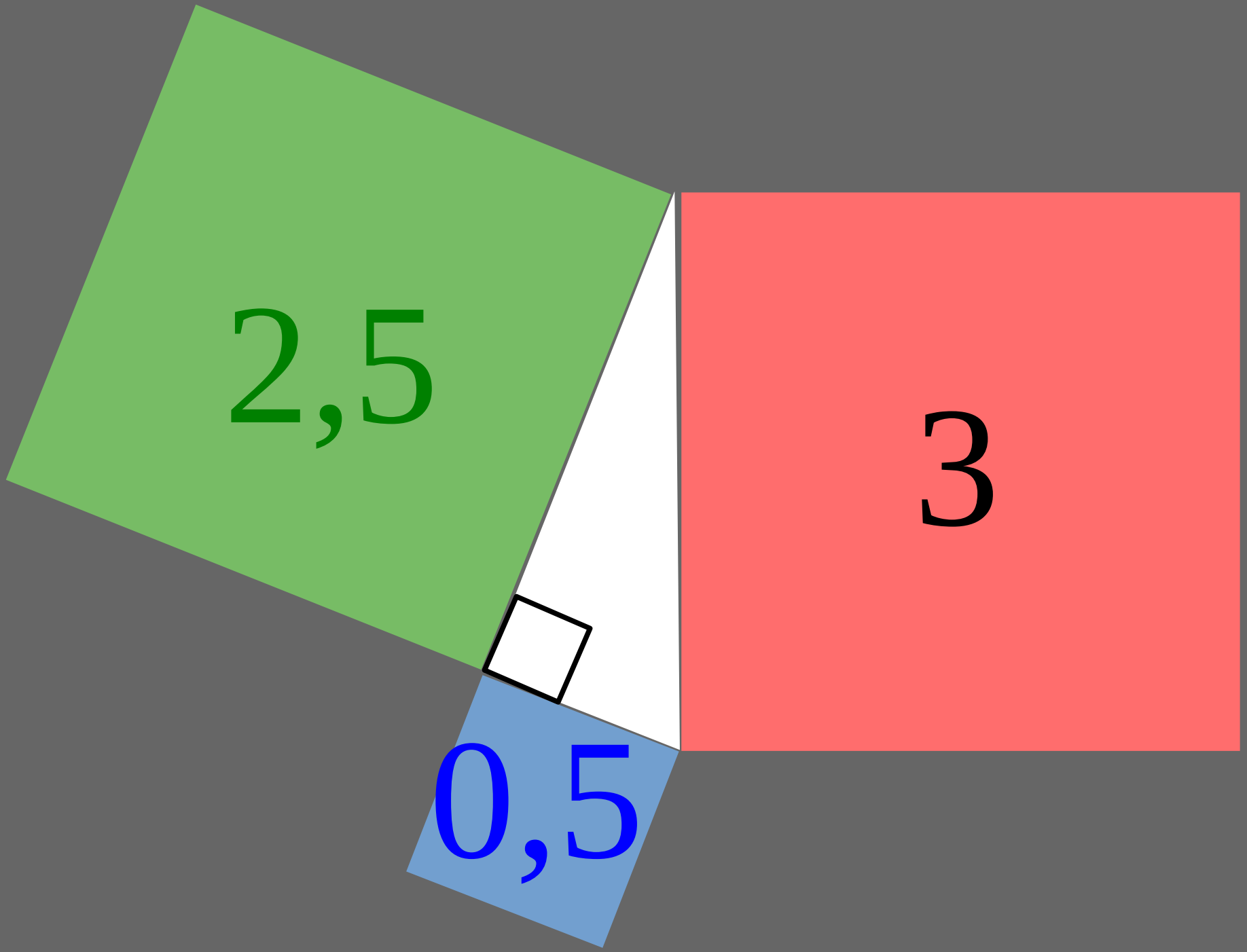
C’est parti !

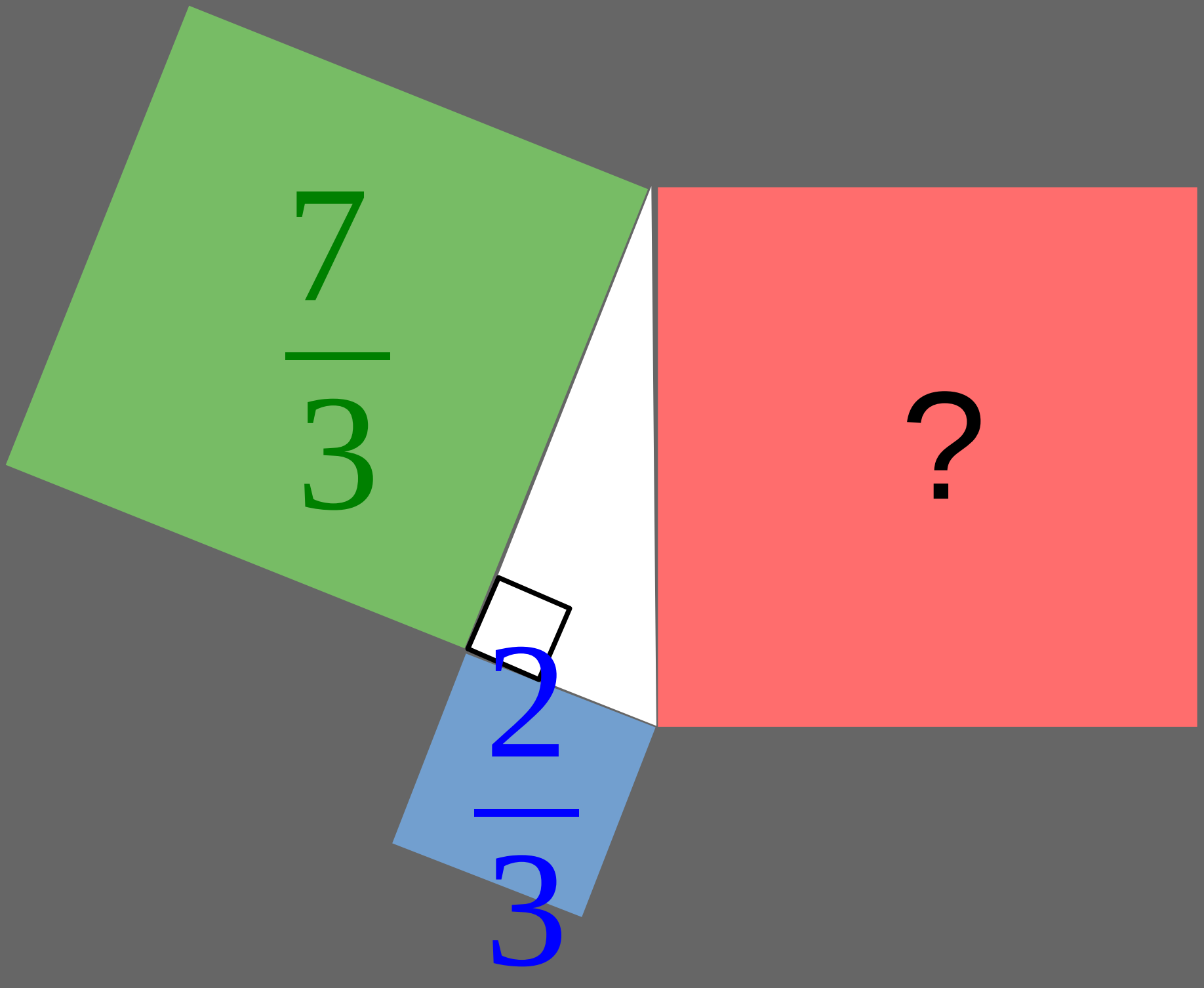
Calcule
l’aire
du carré rouge

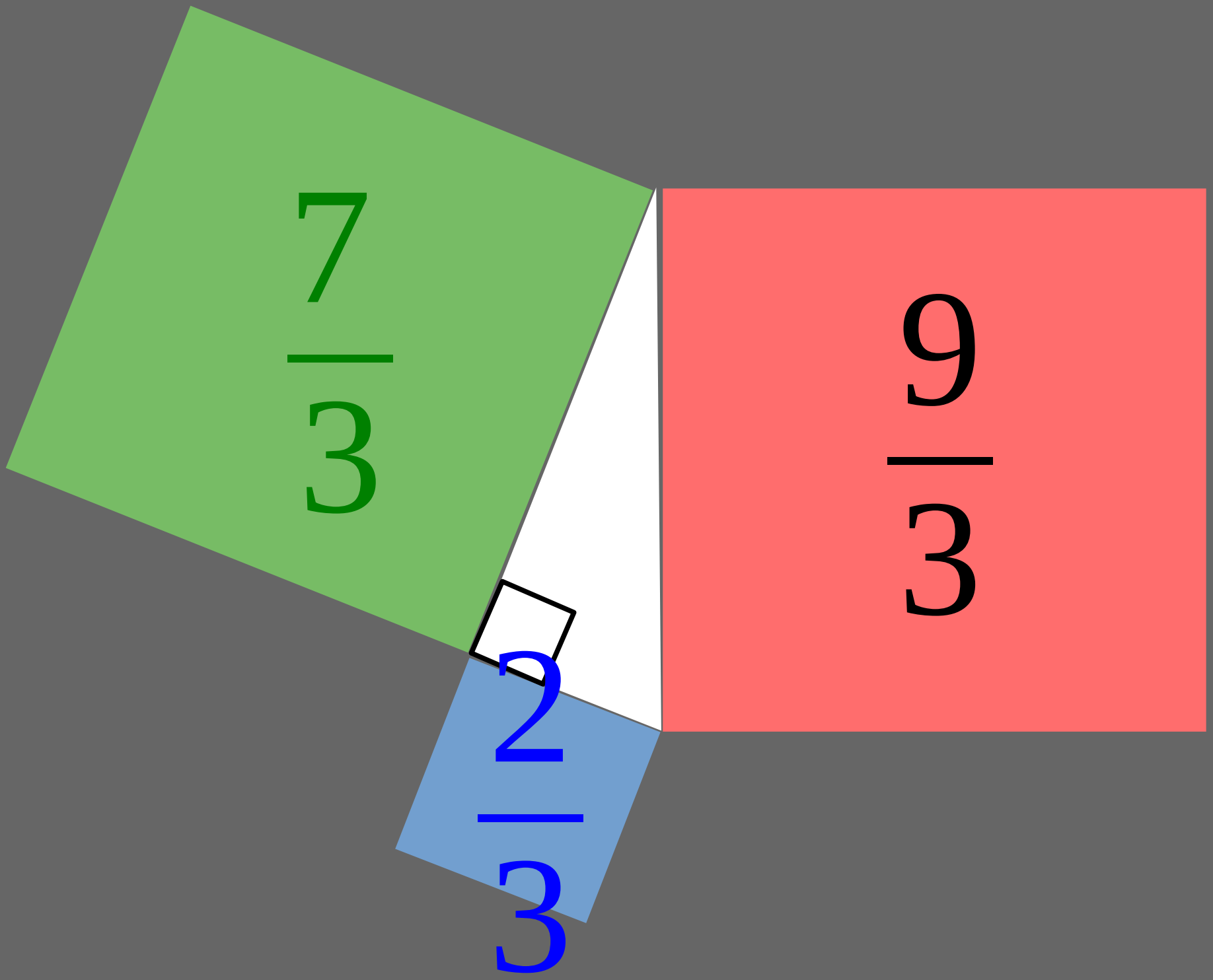

5/2
?
1/2

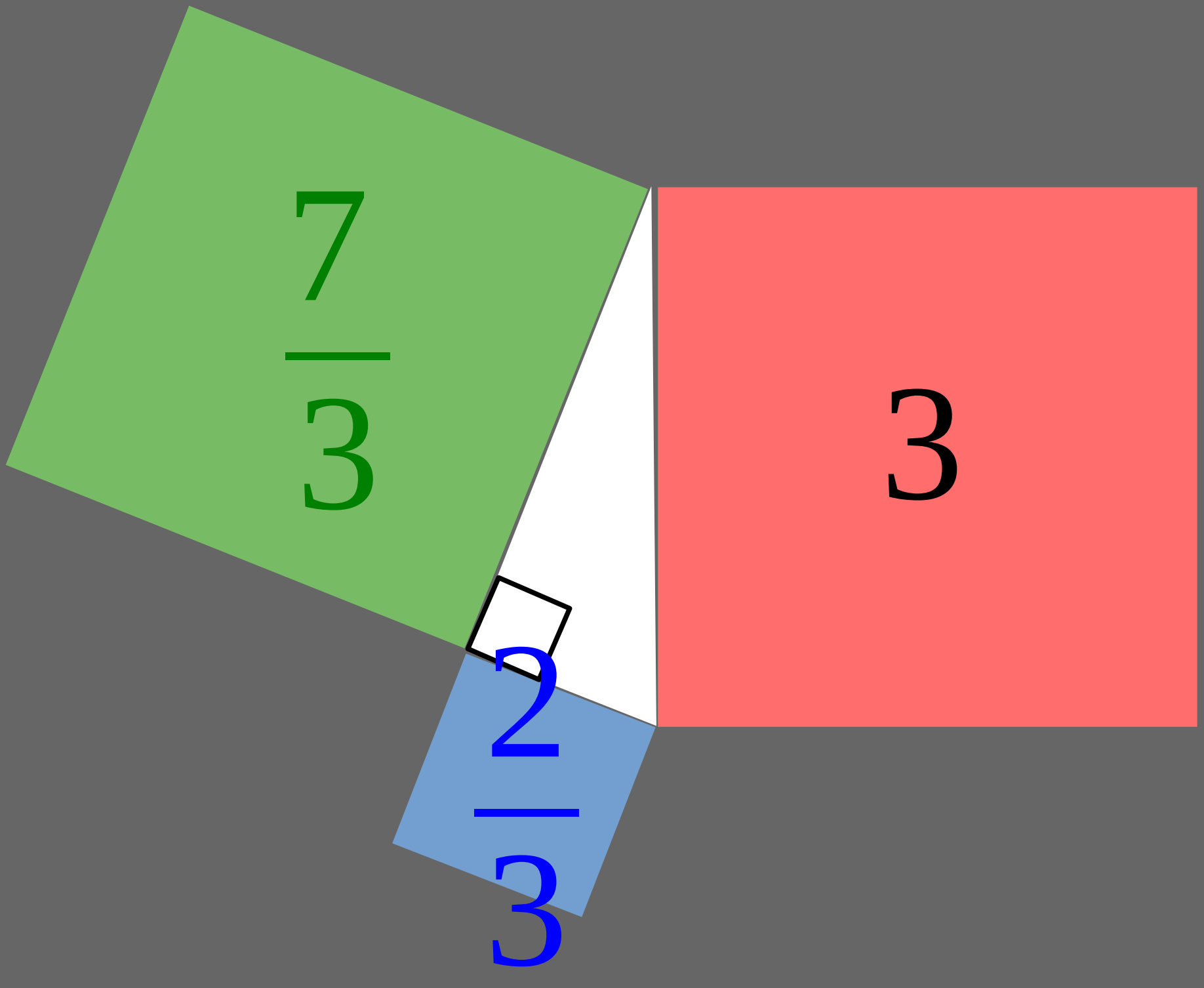

5/2
6/2
1/2

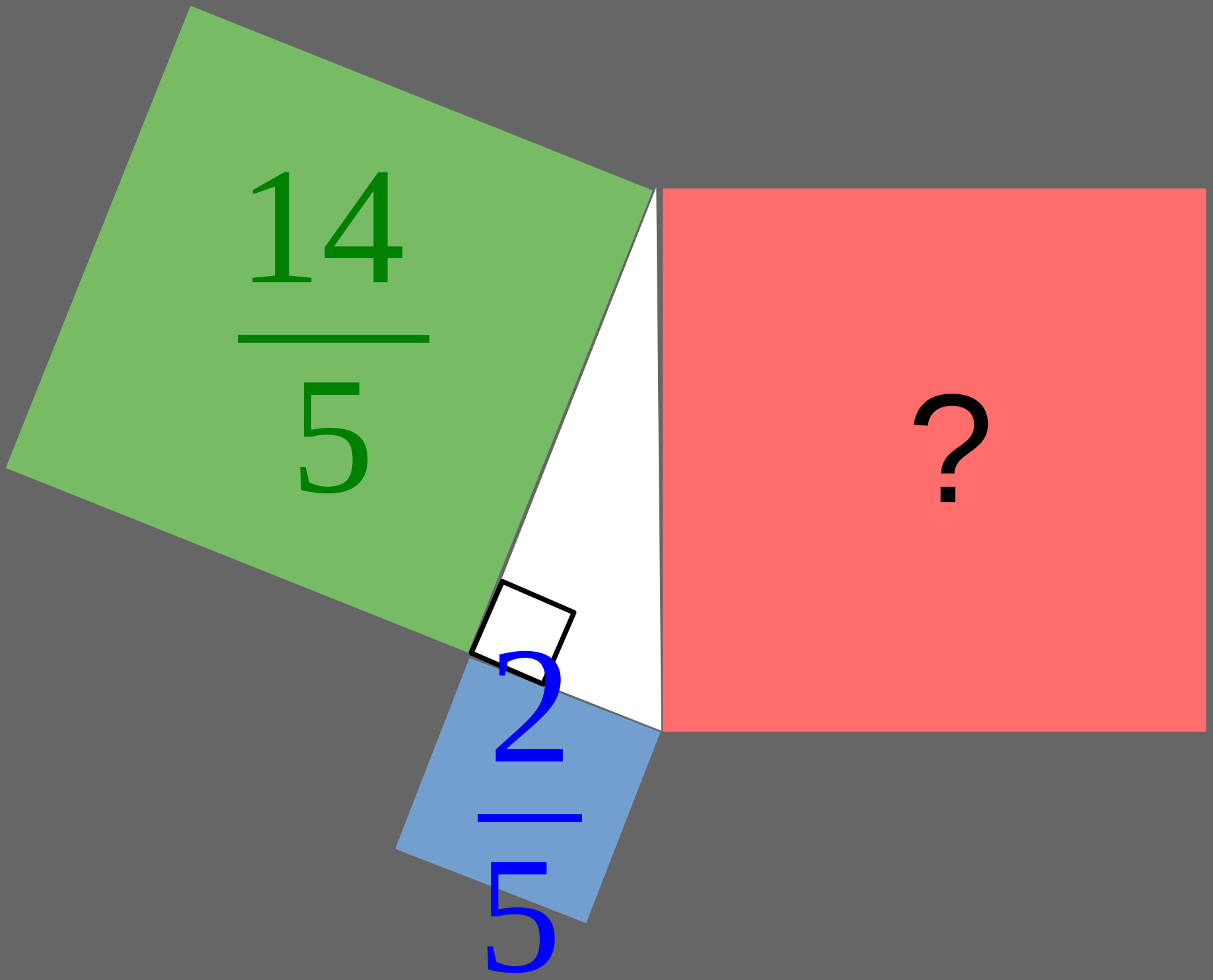

5/2
3
1/2

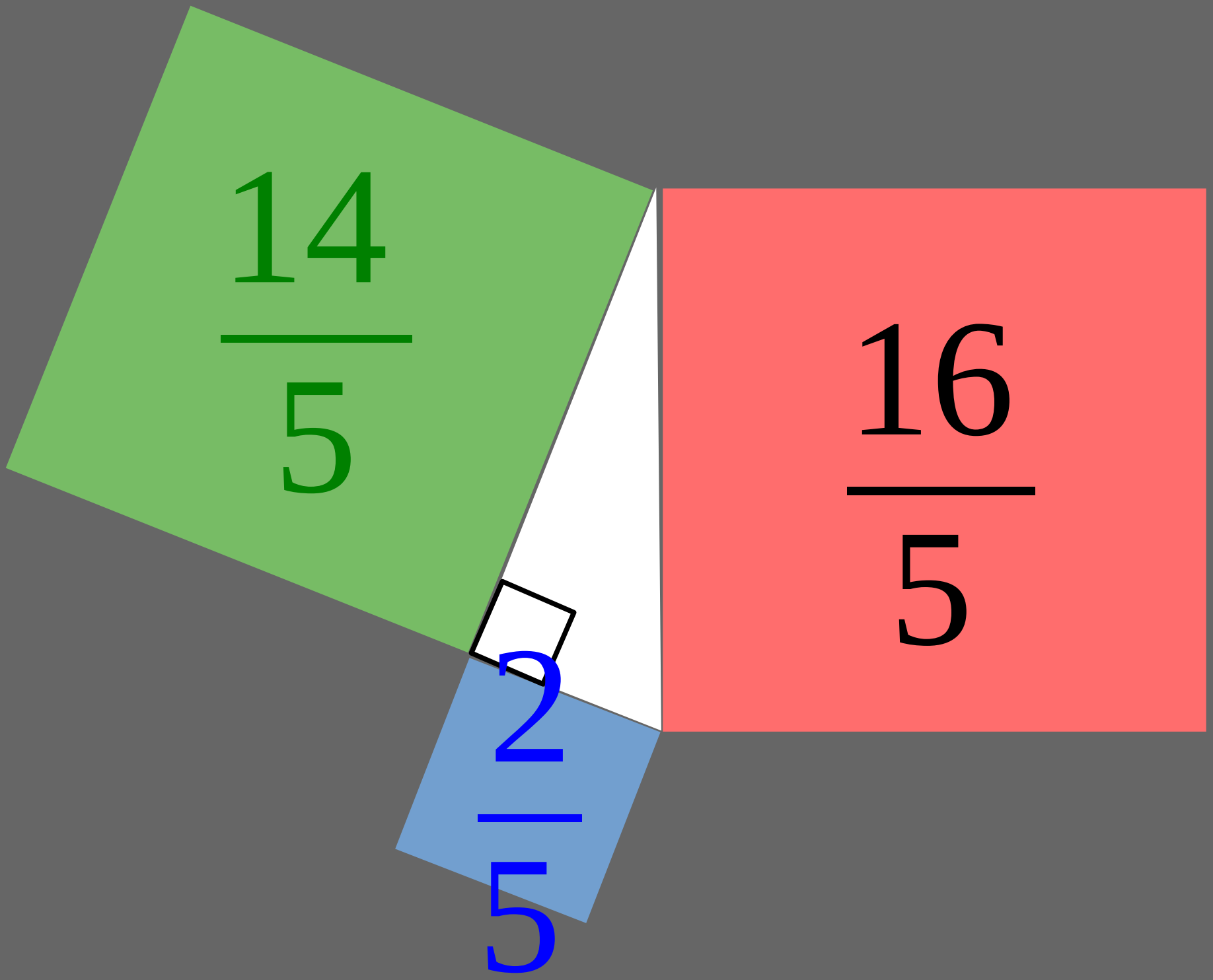

2,5
3
0,5

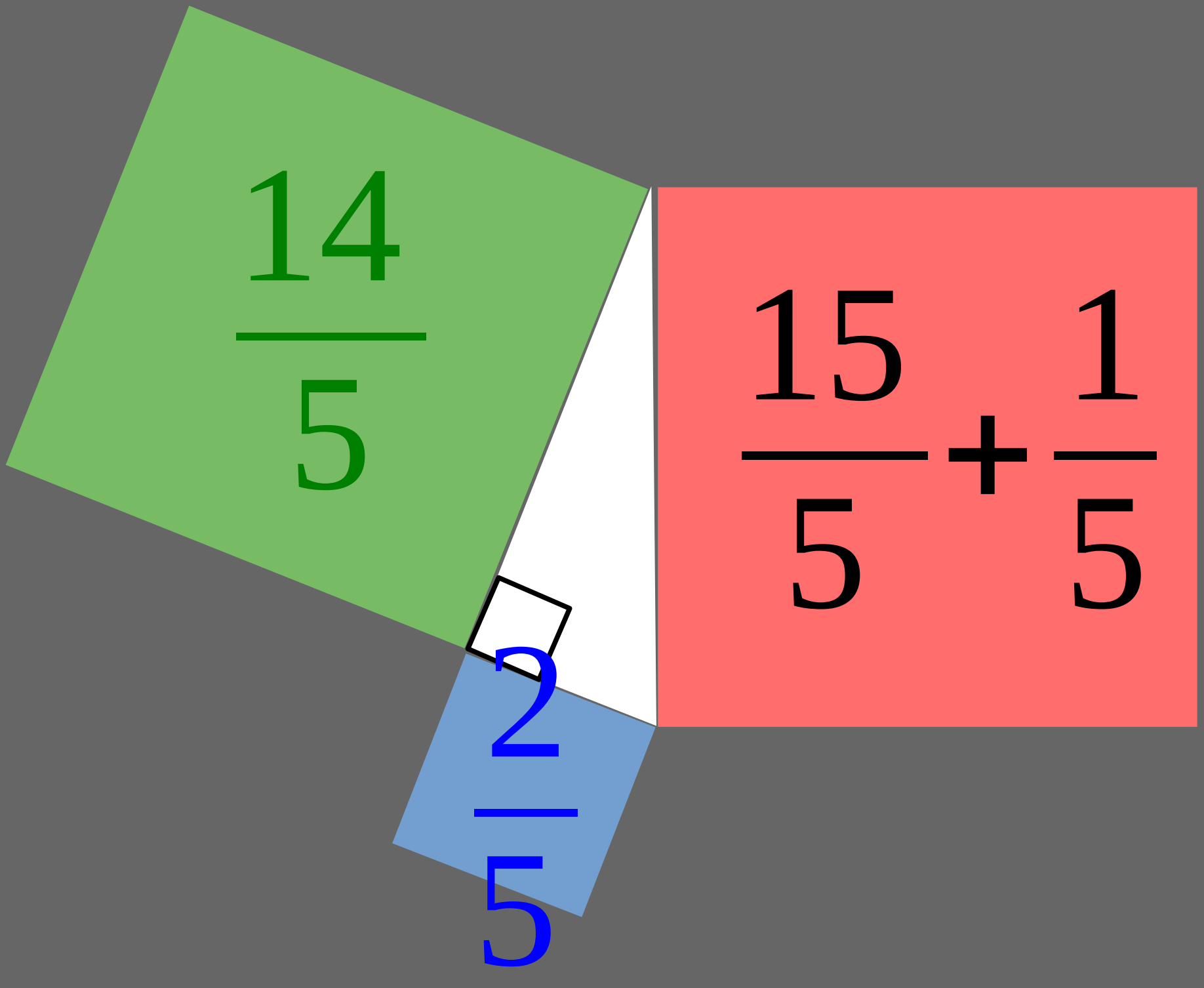

7
3
?
2
3

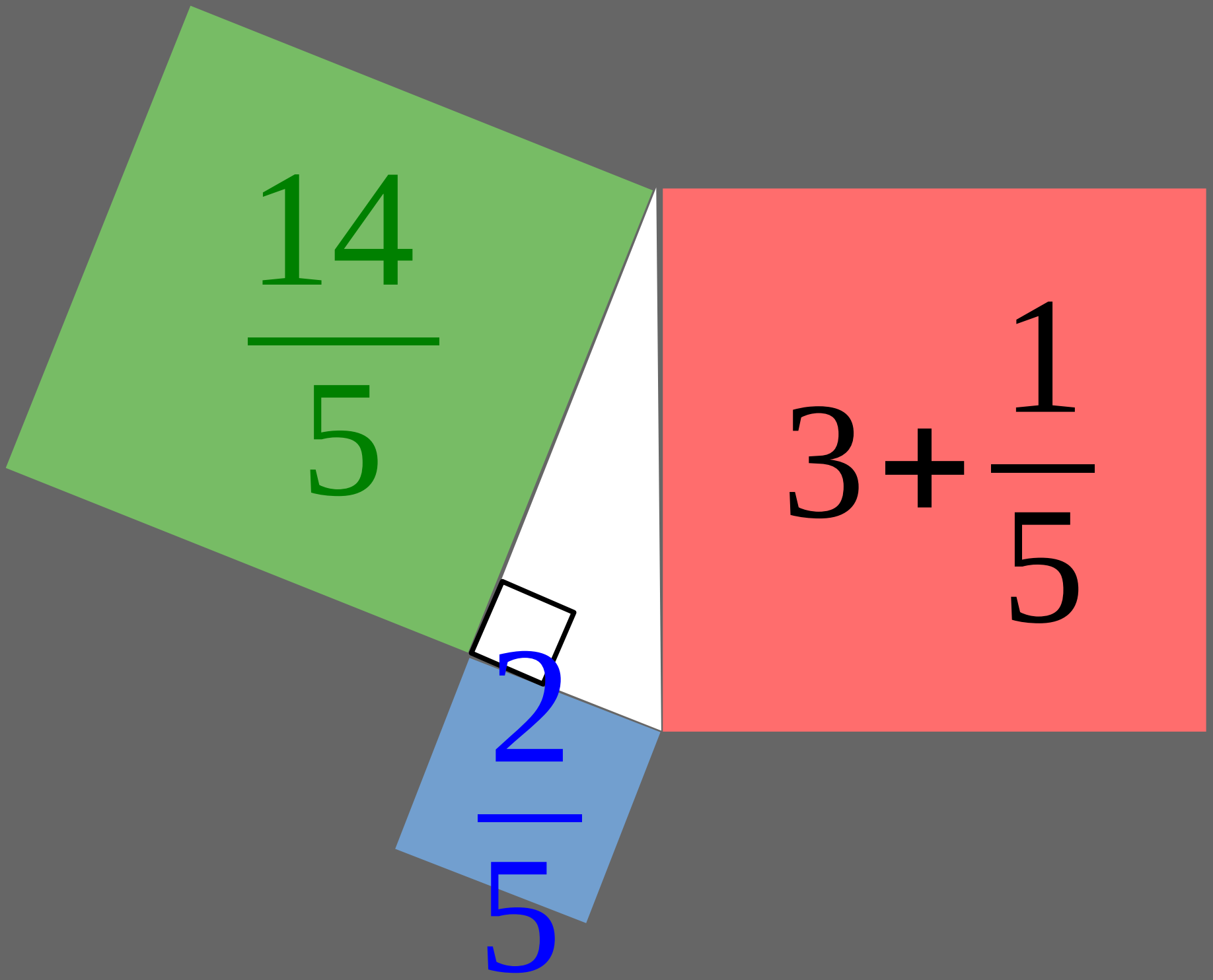

7
3
9
3
2
3

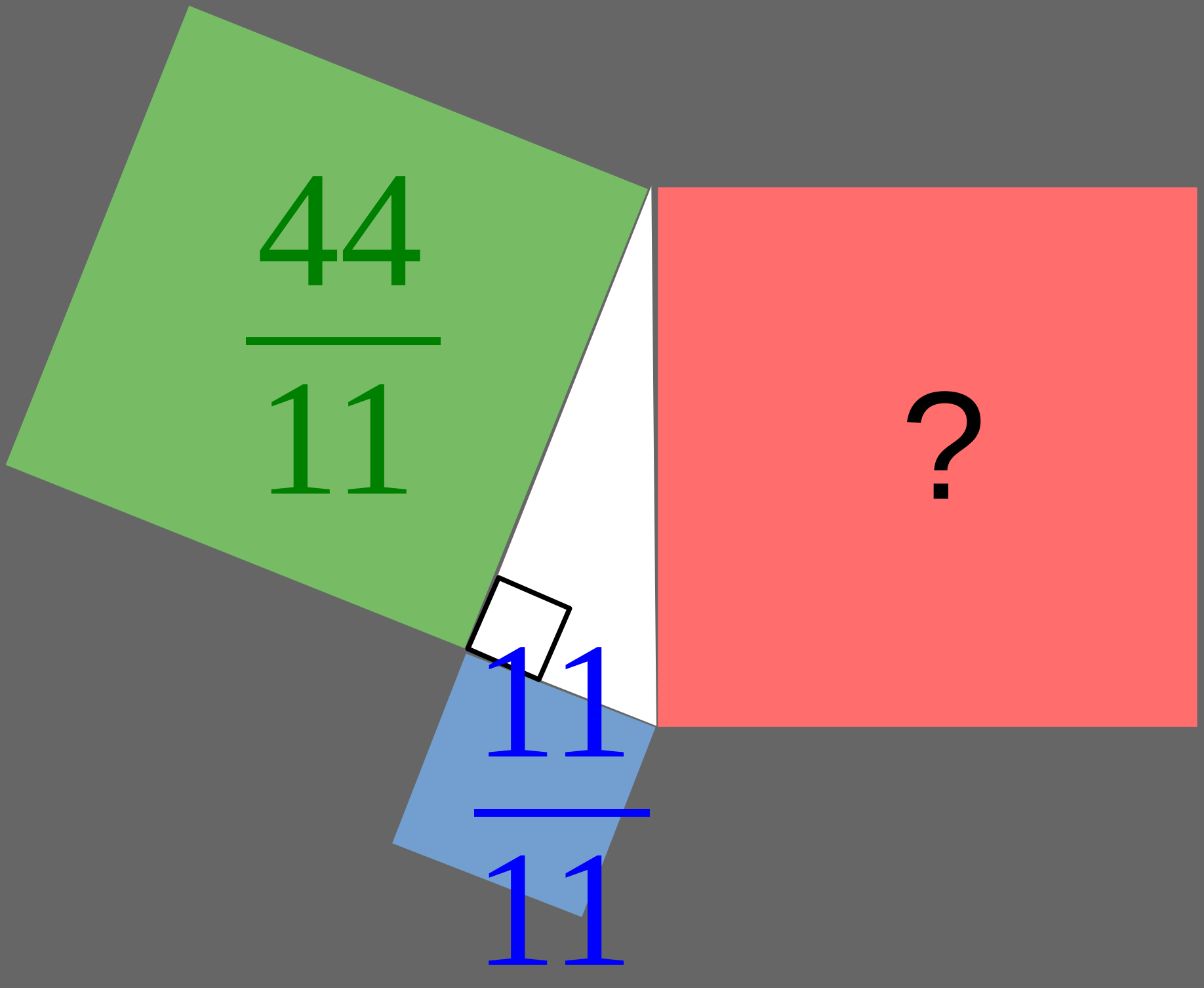

7
3
3
2
3

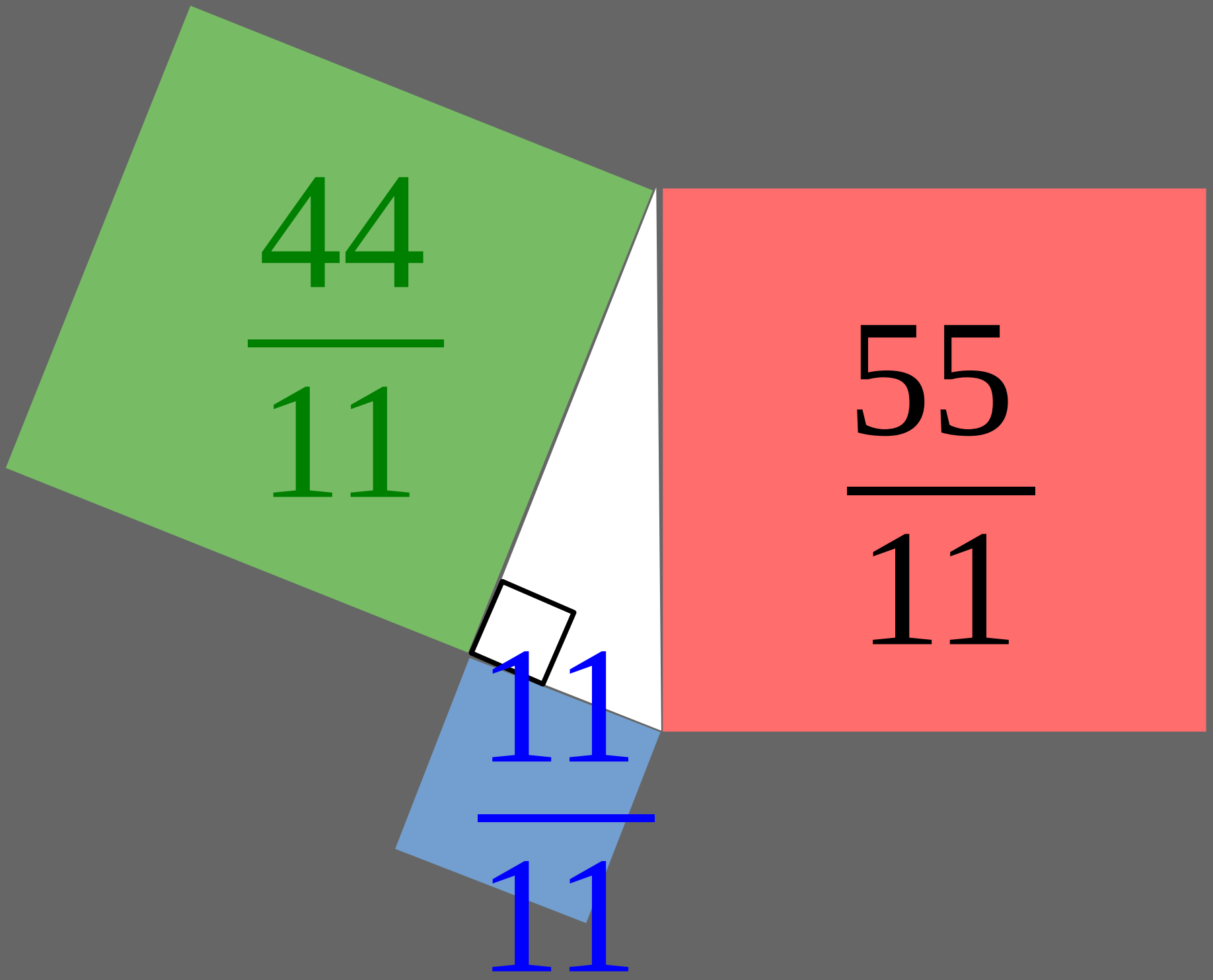

14
5
?
2
5

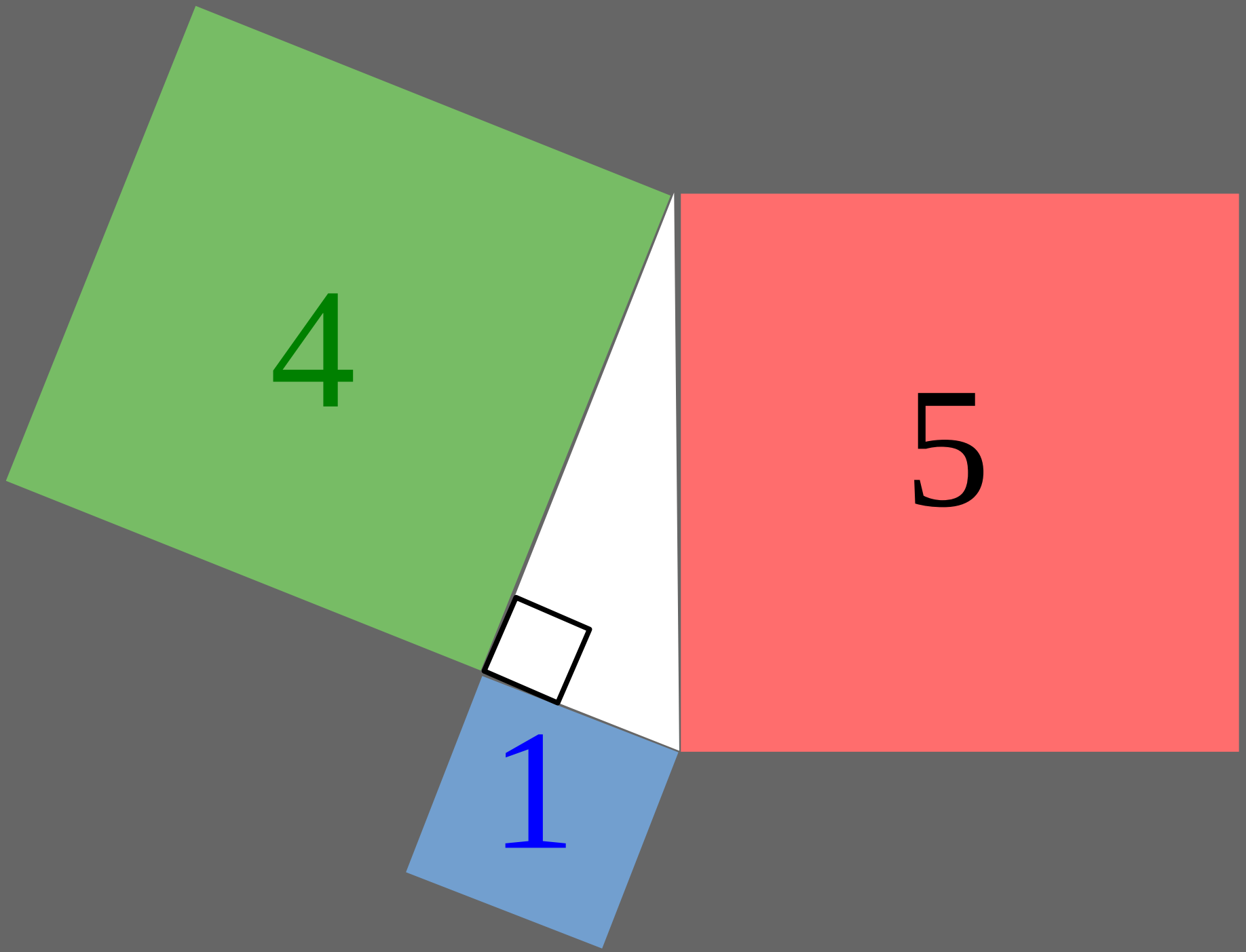

14/5
16/5
2/5

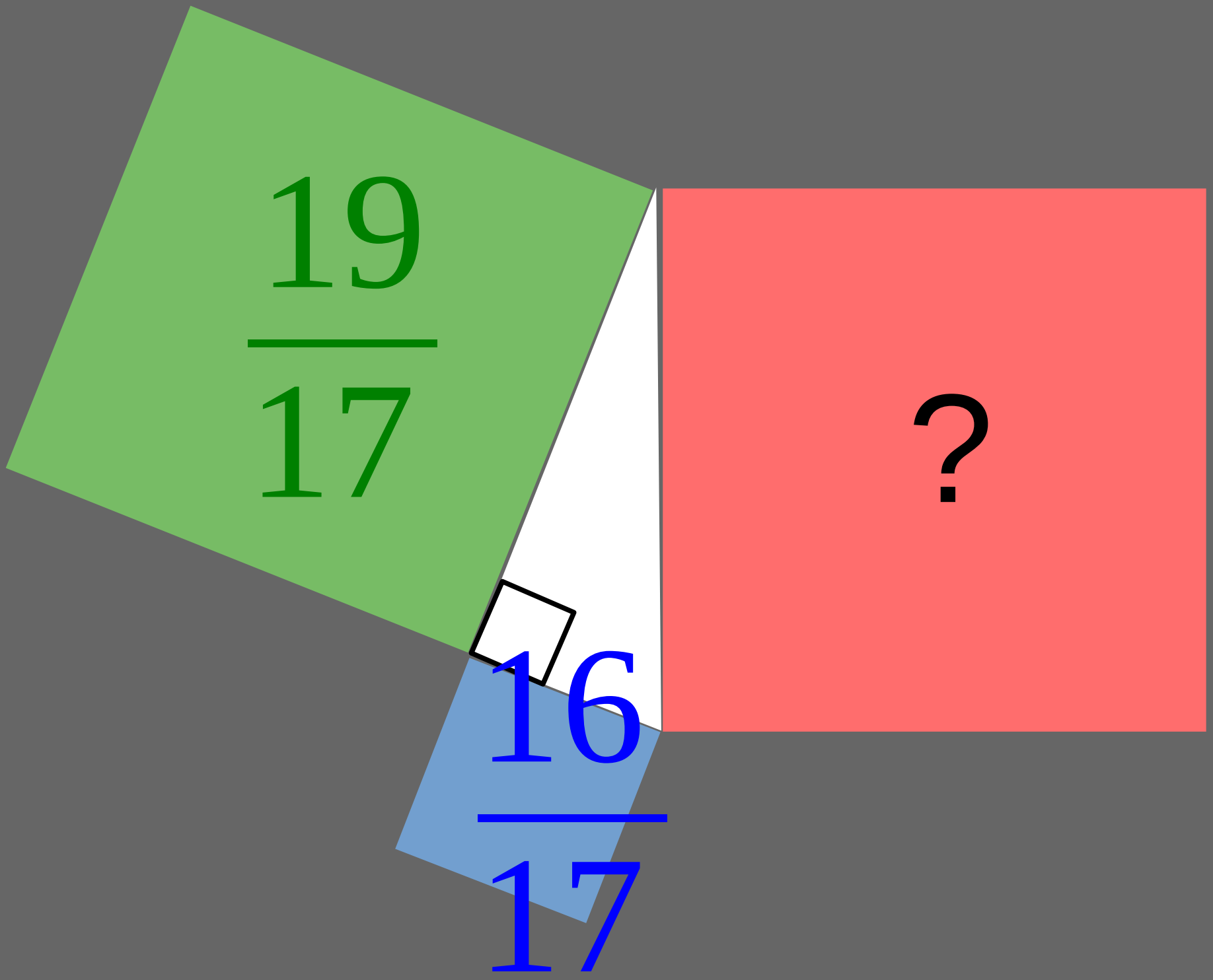

$\frac{14}{5}$
$\frac{15}{5}+\frac{1}{5}$
$\frac{2}{5}$

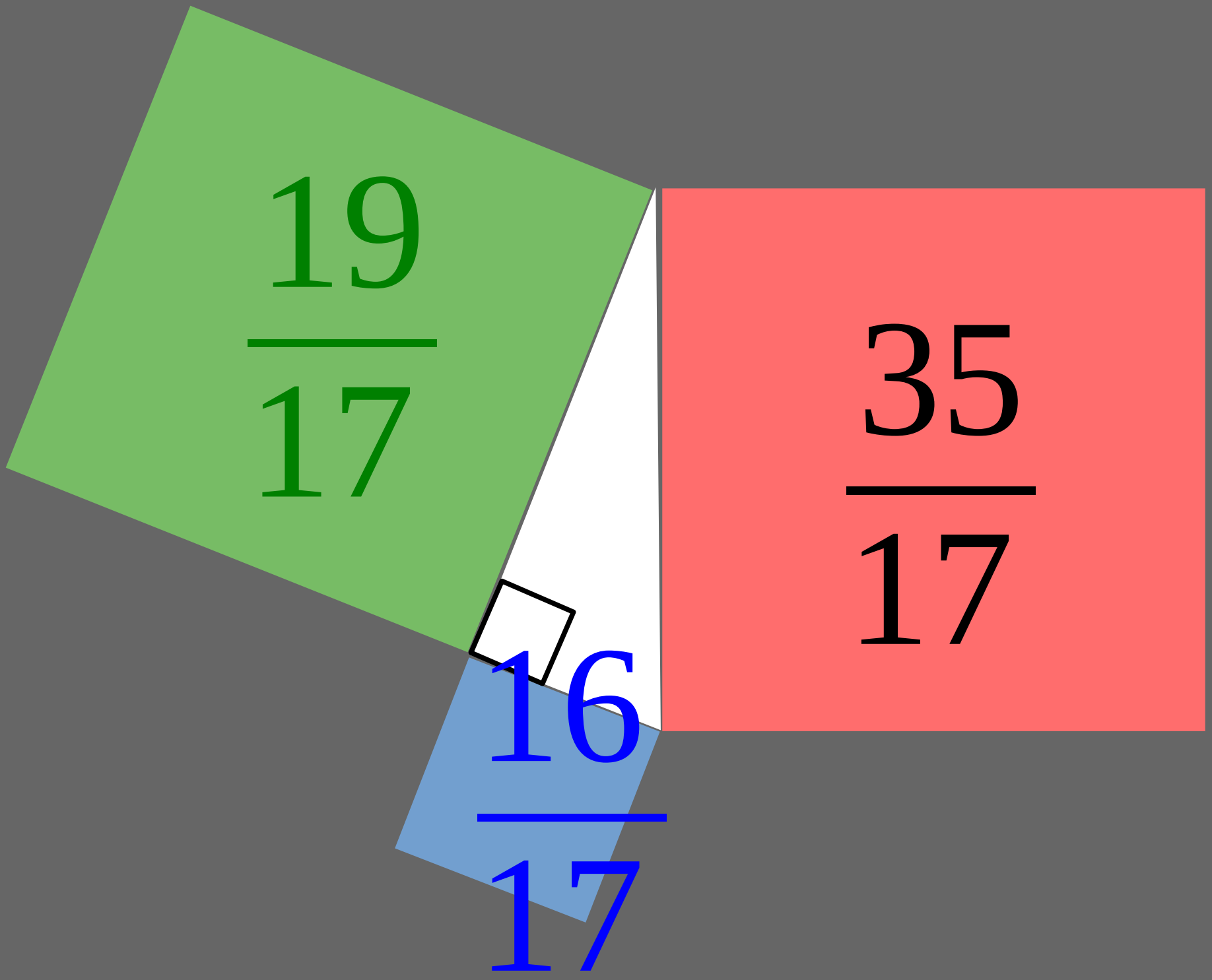

$\frac{14}{5}$
$3+\frac{1}{5}$
$\frac{2}{5}$

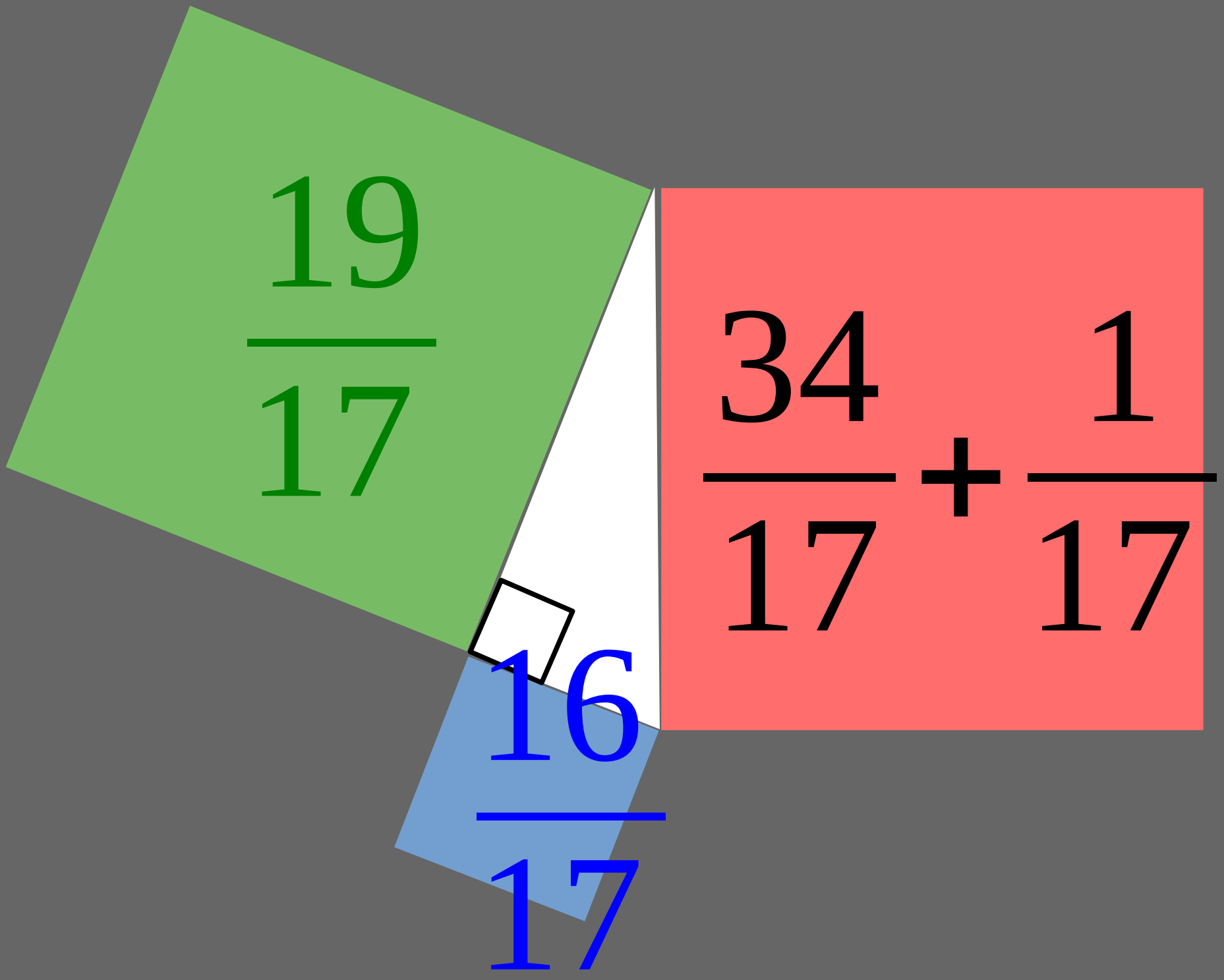

44
11
?
11
11
11

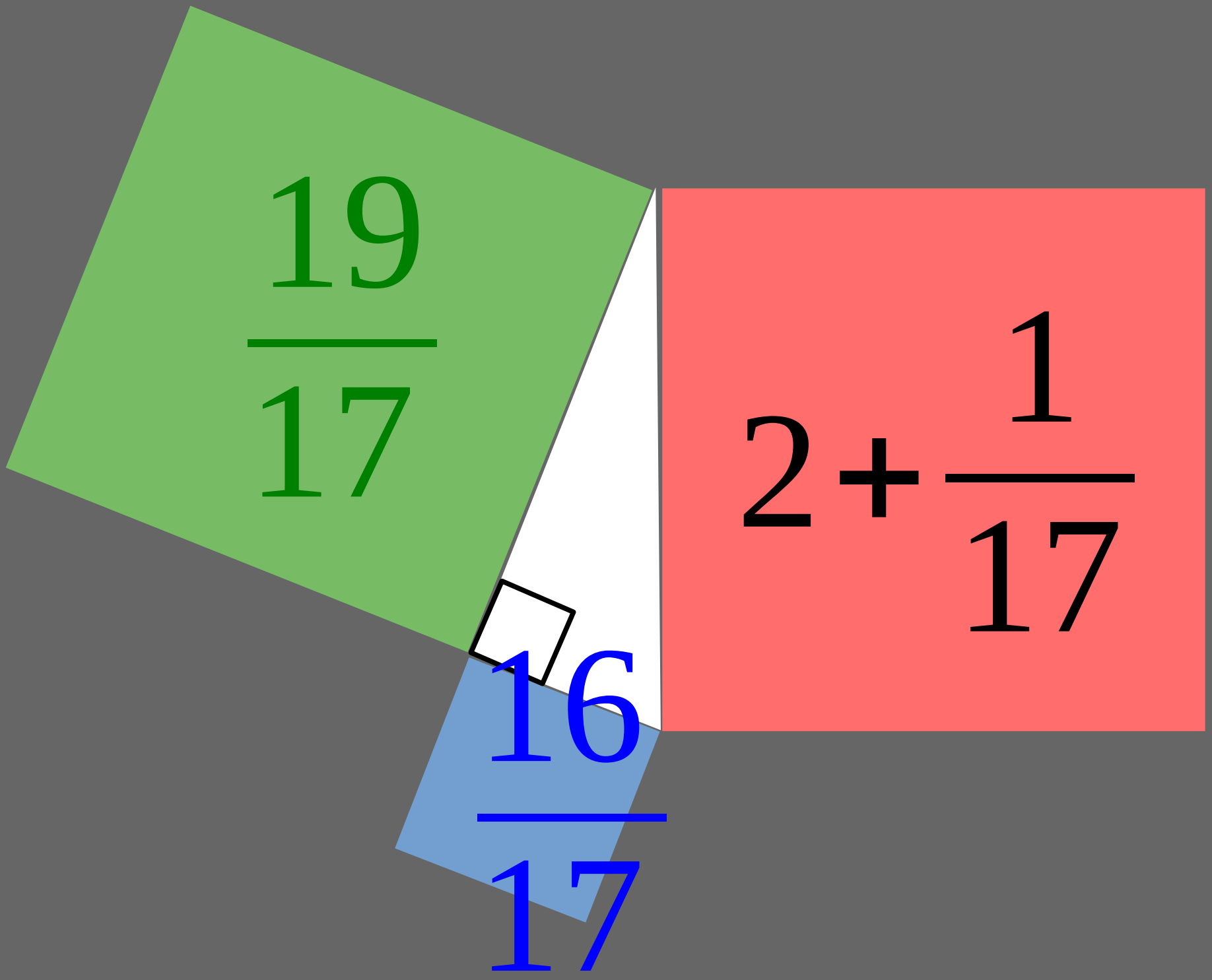

44
11
55
11
11
11
11

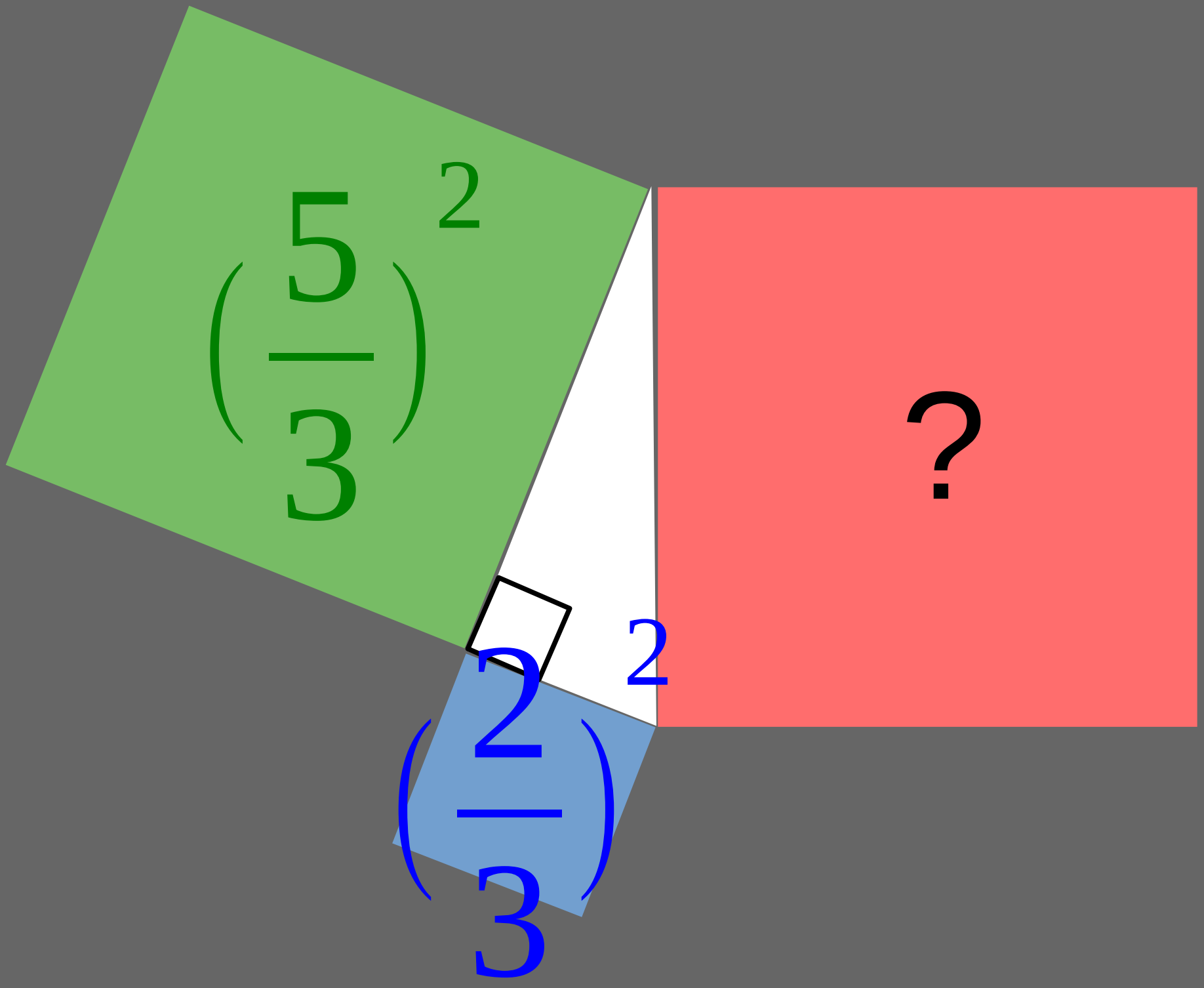

4
5
1


19/17
?
16/17


19/17
35/17
16/17


$\frac{19}{17}$
$\frac{34}{17}+\frac{1}{17}$
$\frac{16}{17}$


$\frac{19}{17}$
$2+\frac{1}{17}$
$\frac{16}{17}$


$\left(\frac{5}{3}\right)^2$
?
2
$\left(\frac{2}{3}\right)$

Rappel :

Fractions : *multiplication* :

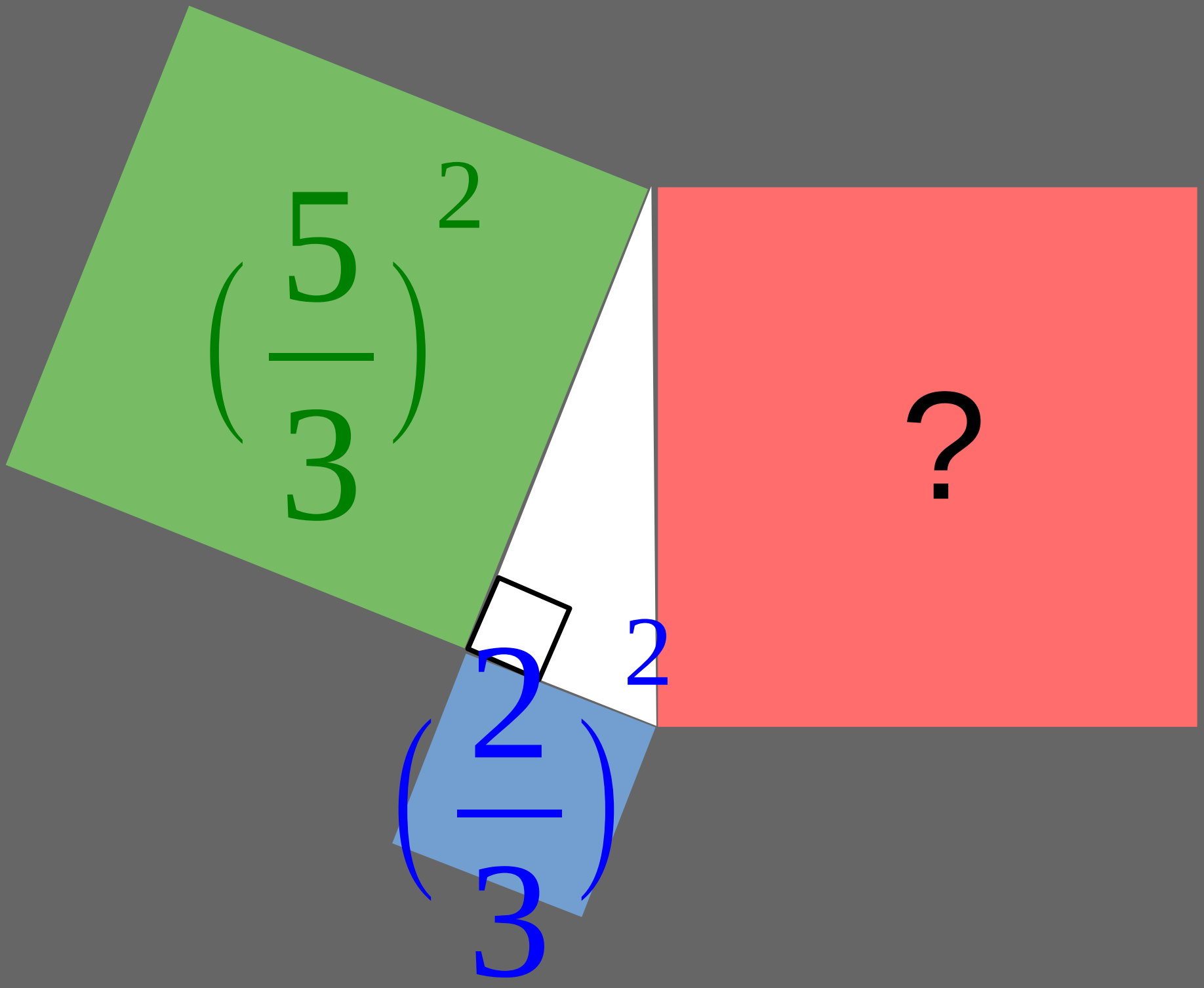
$$\frac{e}{f} \times \frac{g}{h} = \frac{e \times g}{f \times h}$$

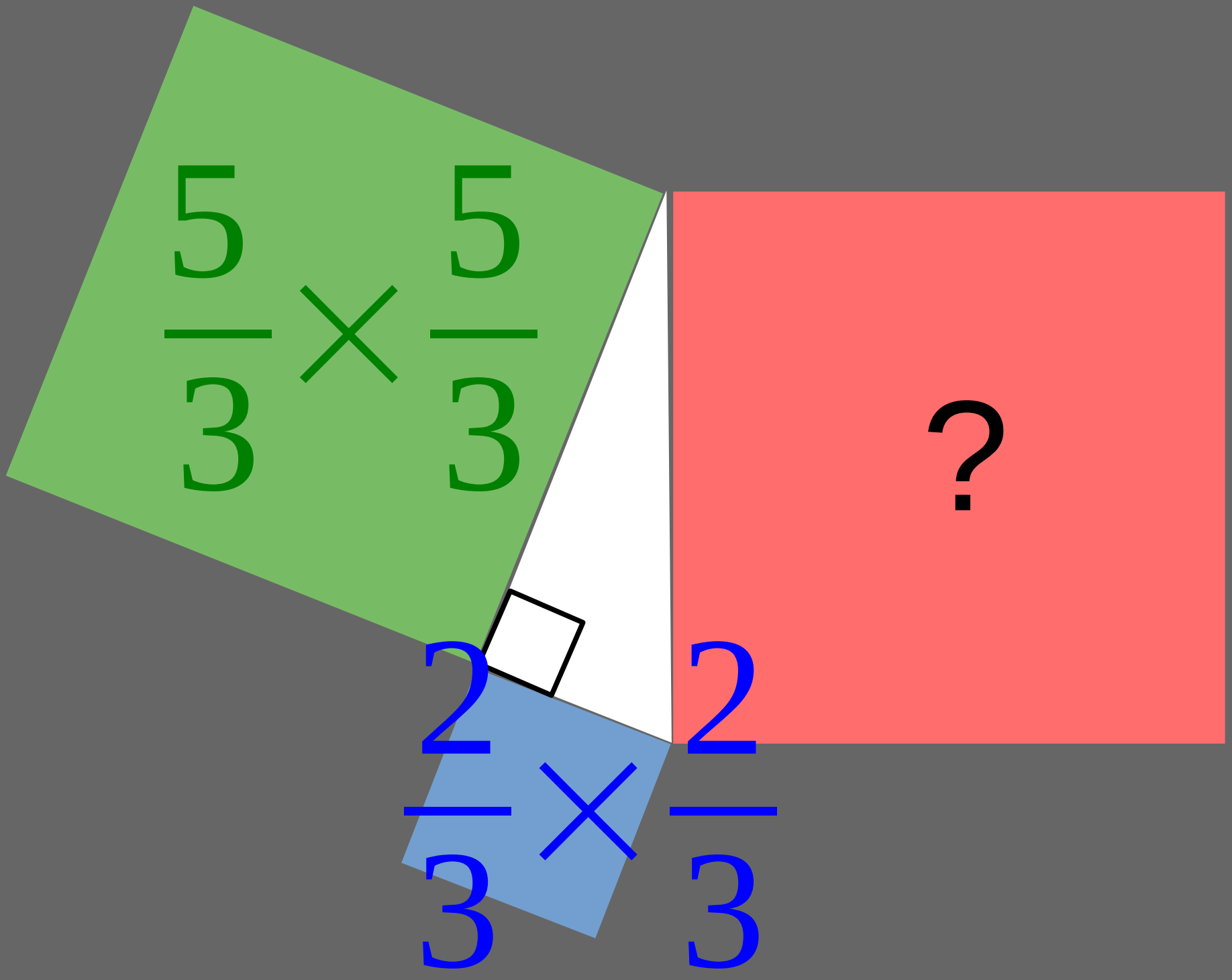
Fractions : *multiplication* :

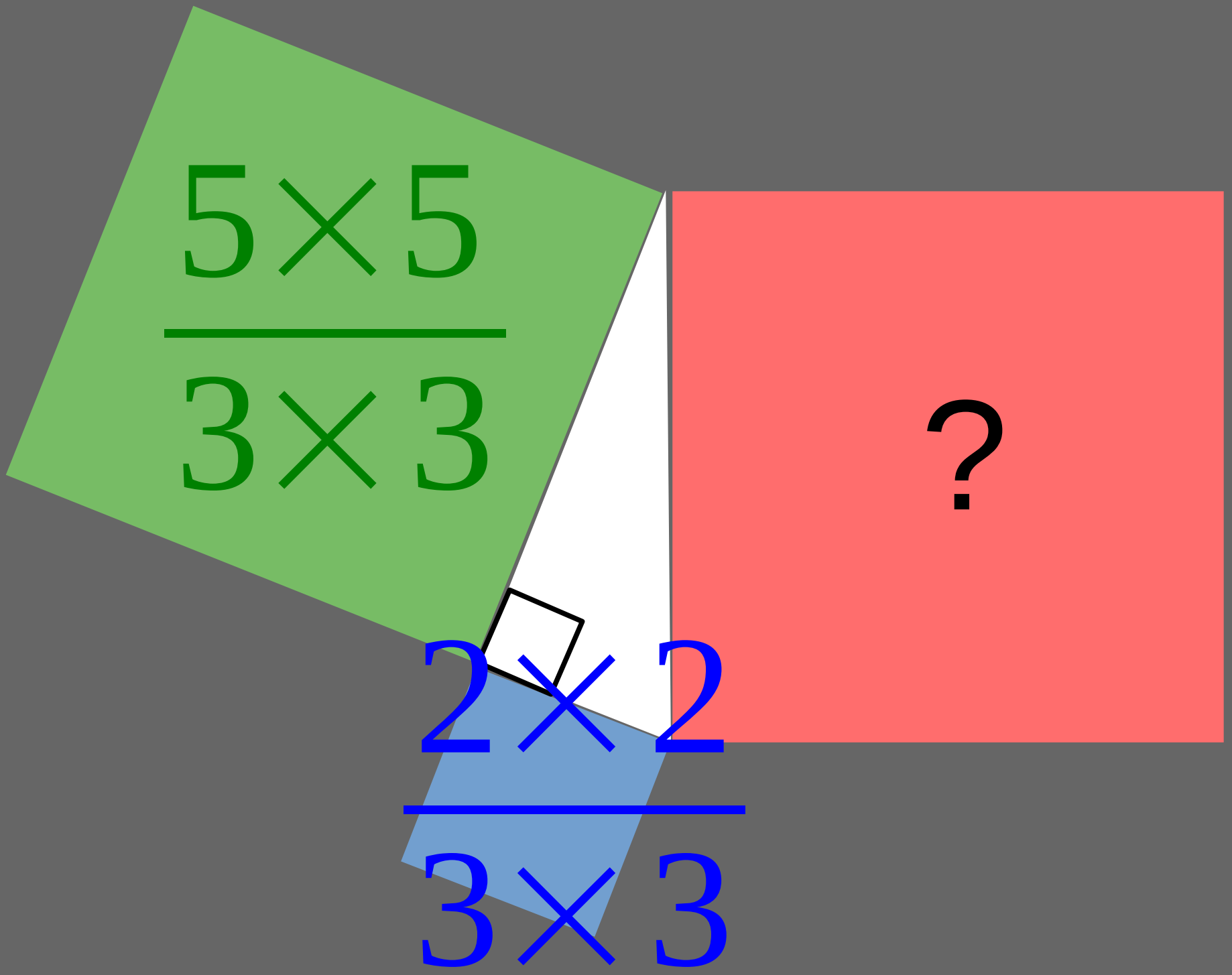
$$\frac{e}{f} \times \frac{e}{f} = \frac{e \times e}{f \times f}$$

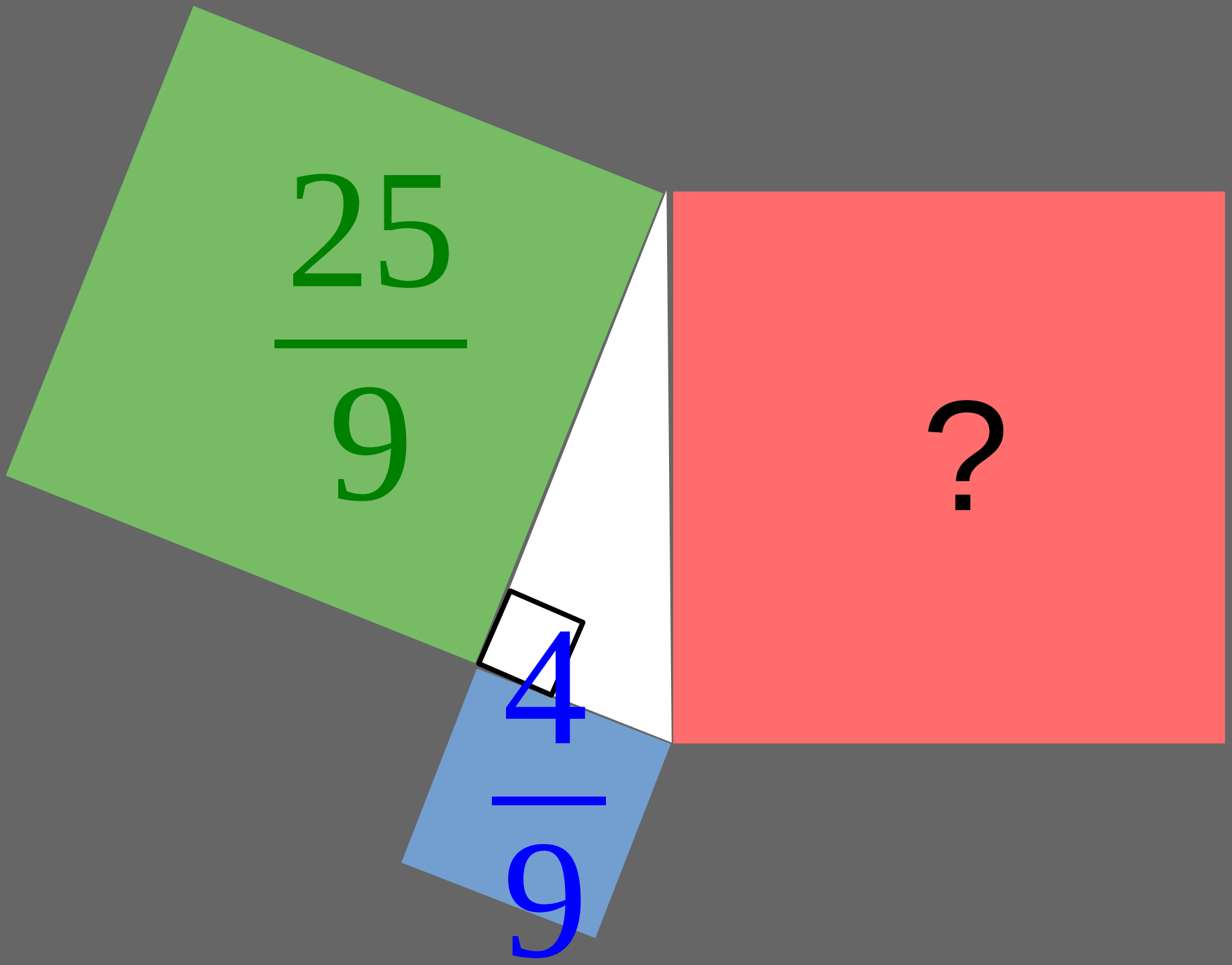
Fraction au carré:

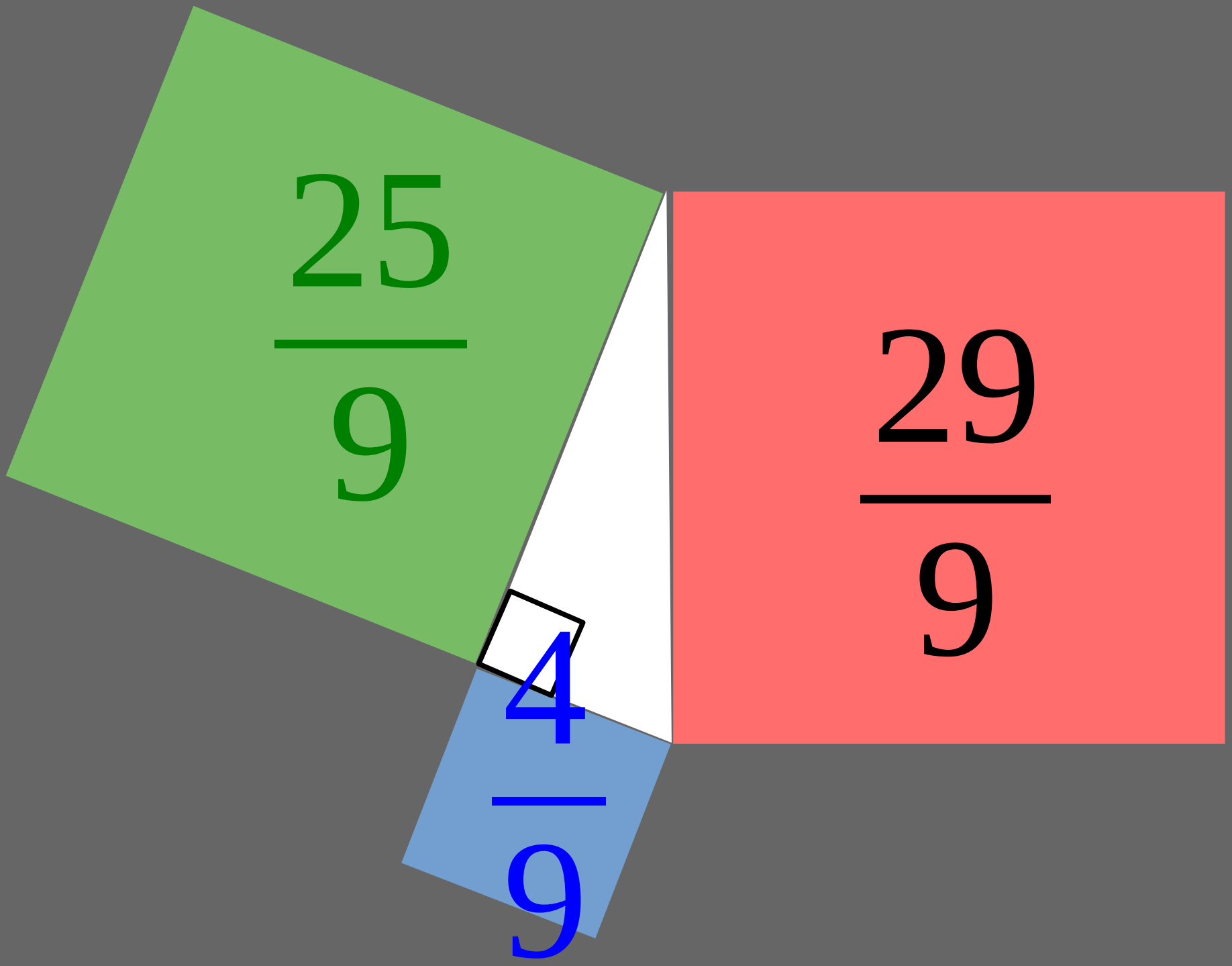
$$\left(\frac{e}{f}\right)^2 = \frac{e^2}{f^2}$$

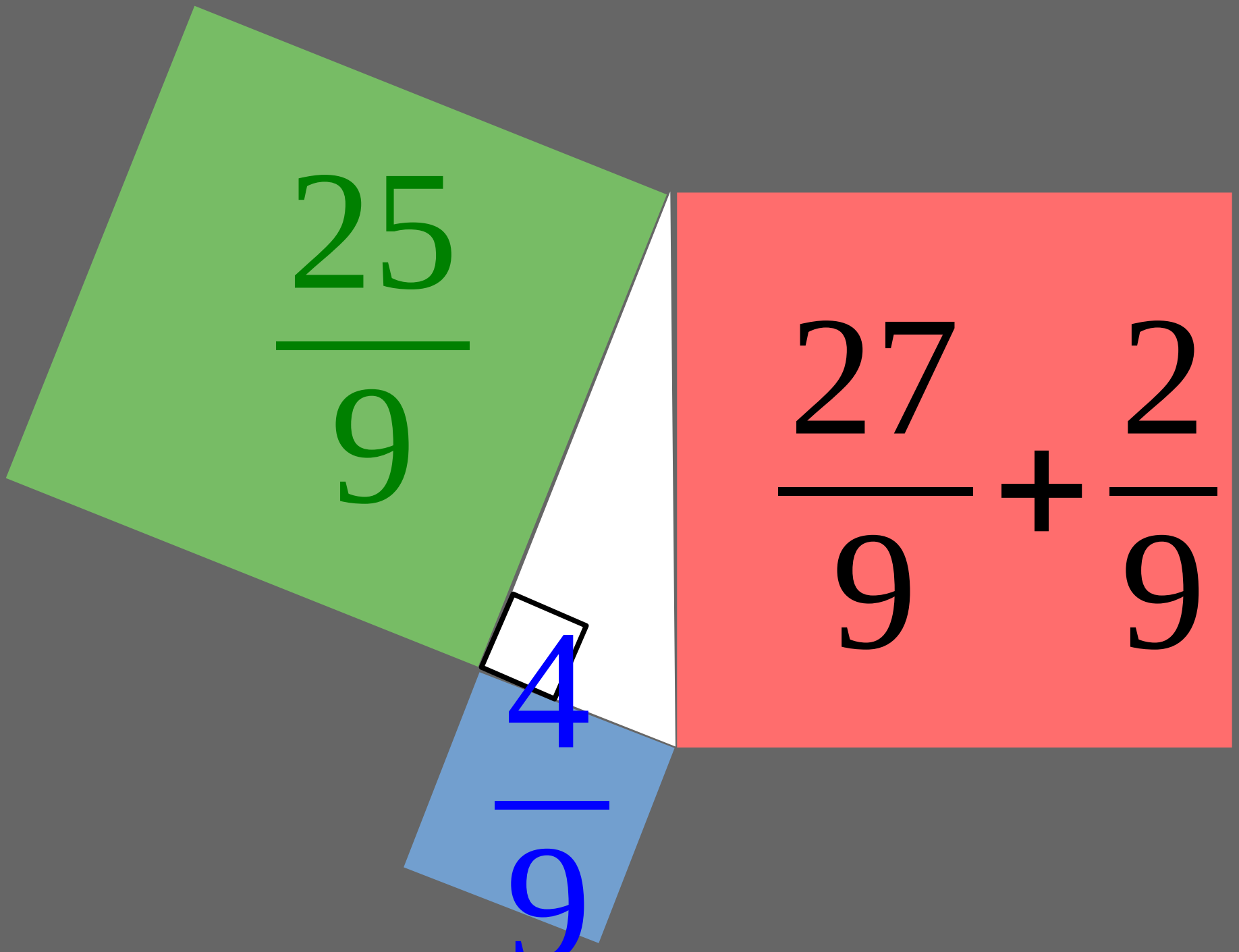

$\left(\frac{5}{3}\right)^2$
?
2
$\left(\frac{2}{3}\right)$

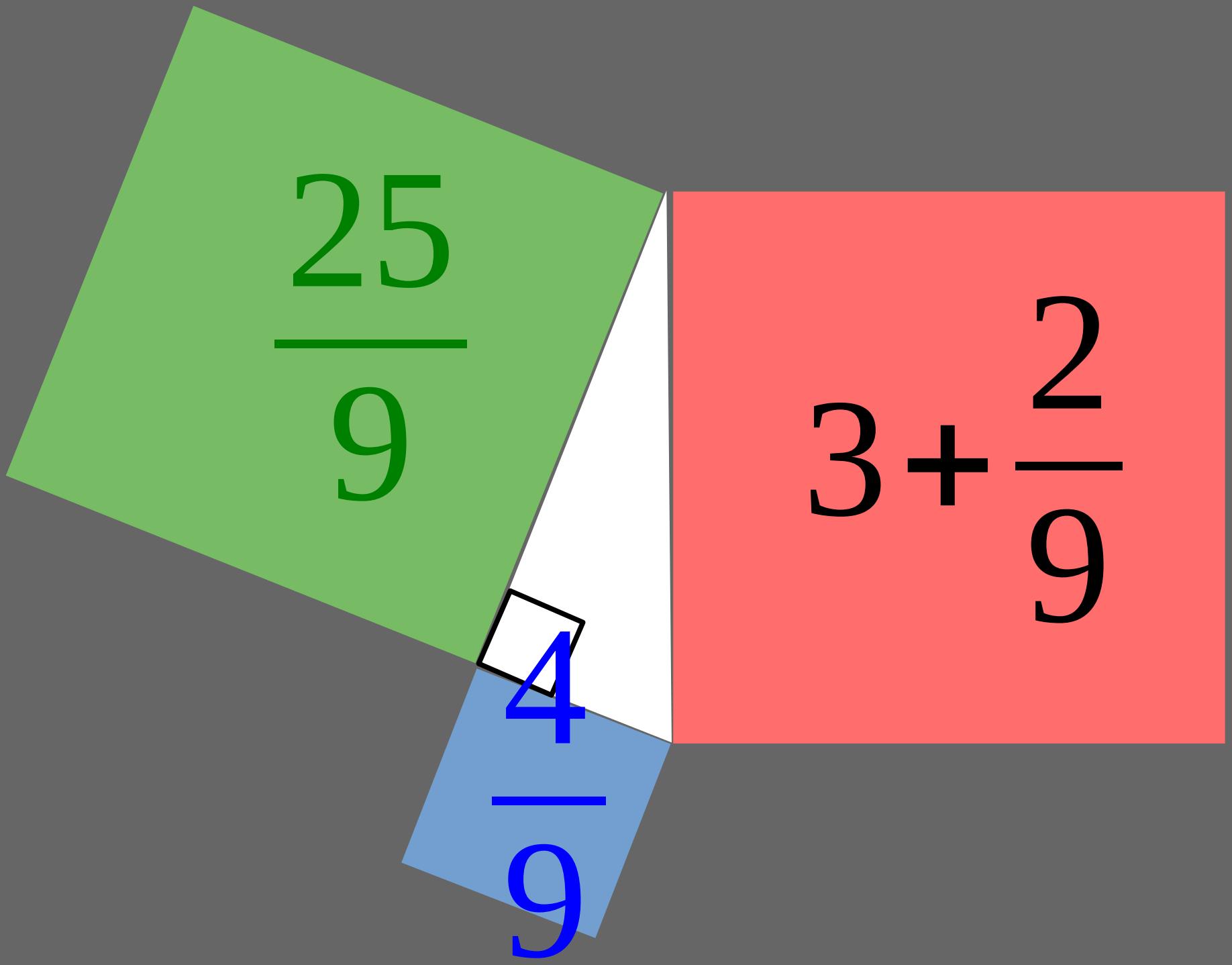

5/3 × 5/3
?
2/3 × 2/3

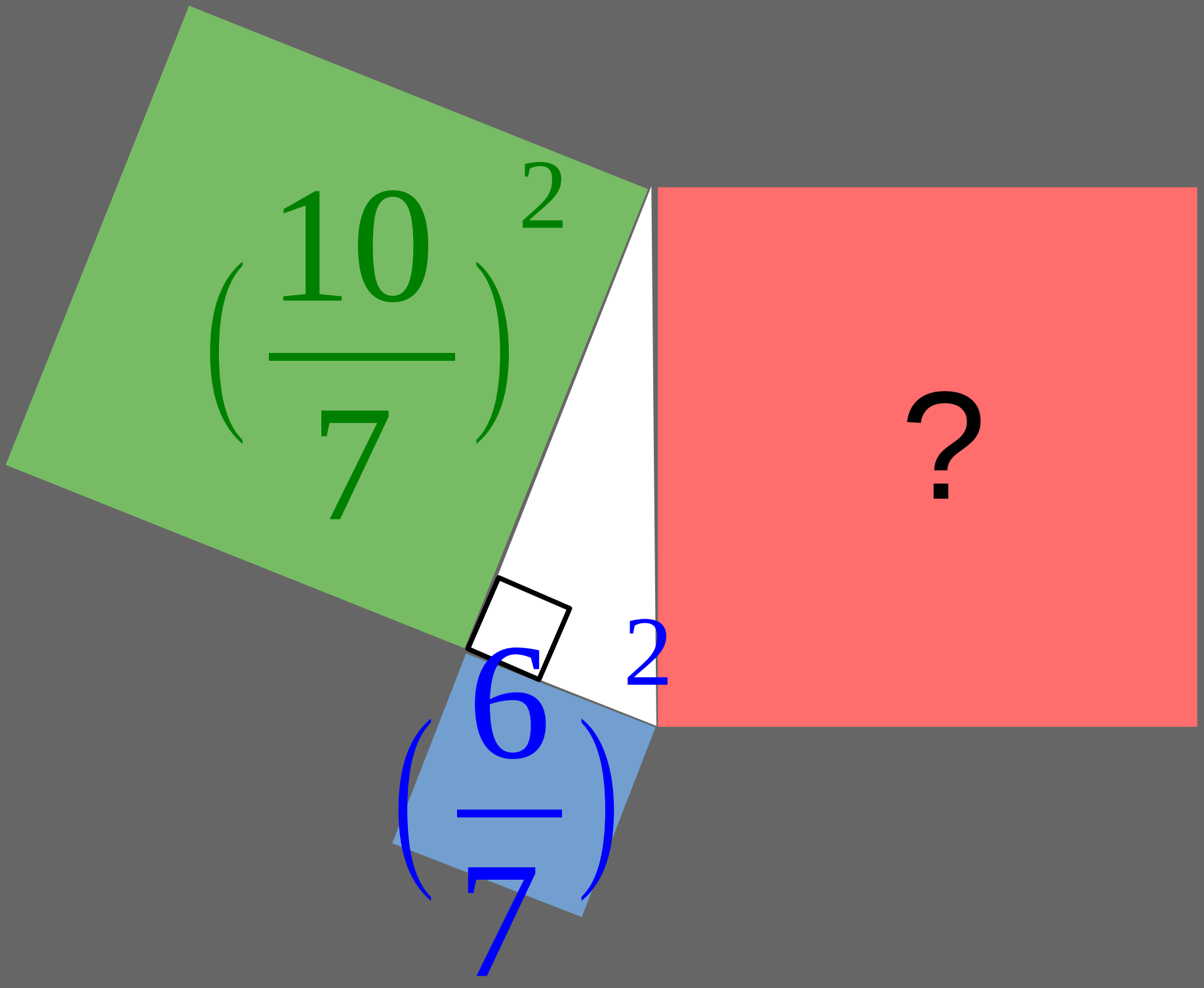

5×5
3×3
?
2×2
3×3

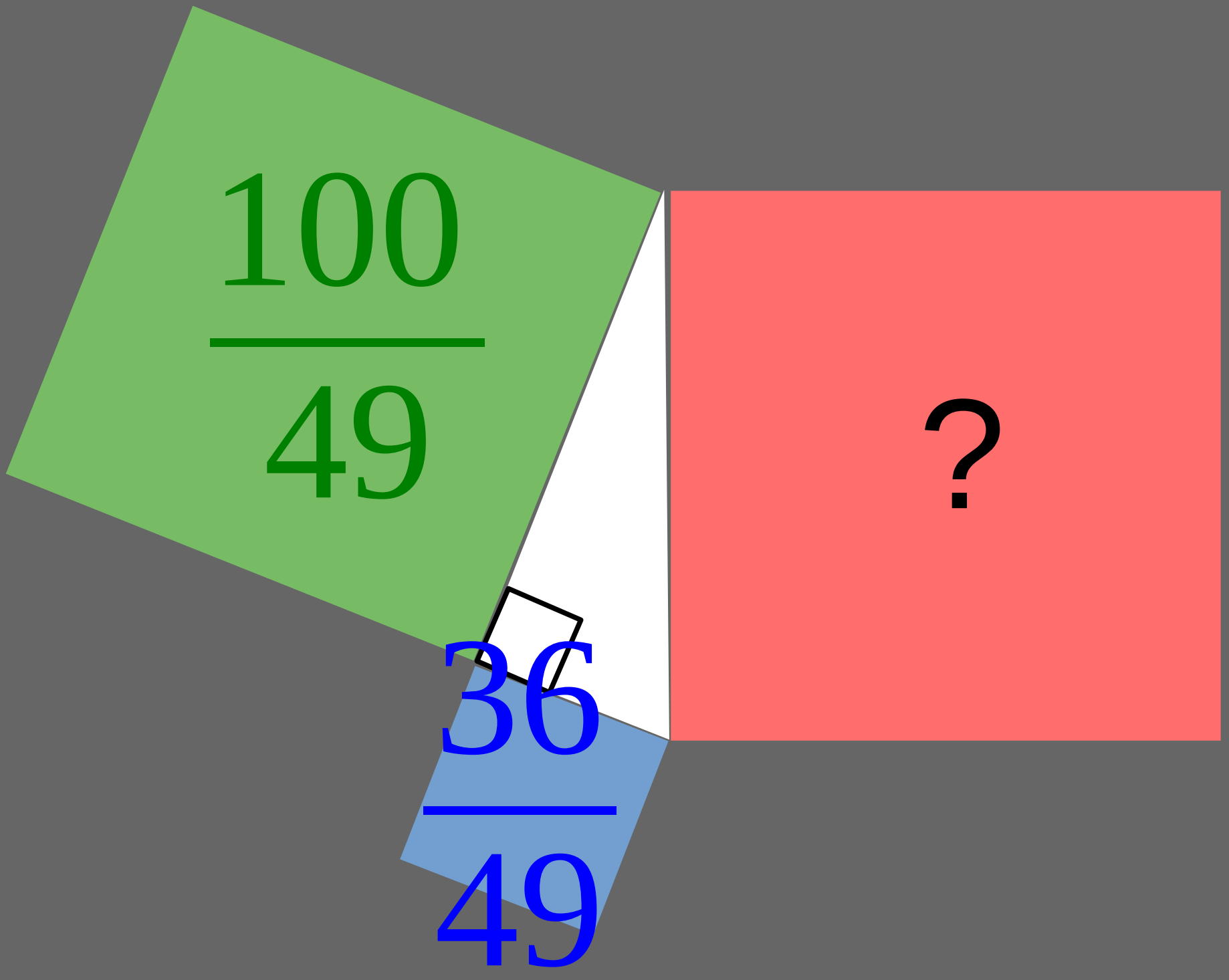

25/9
?
4/9

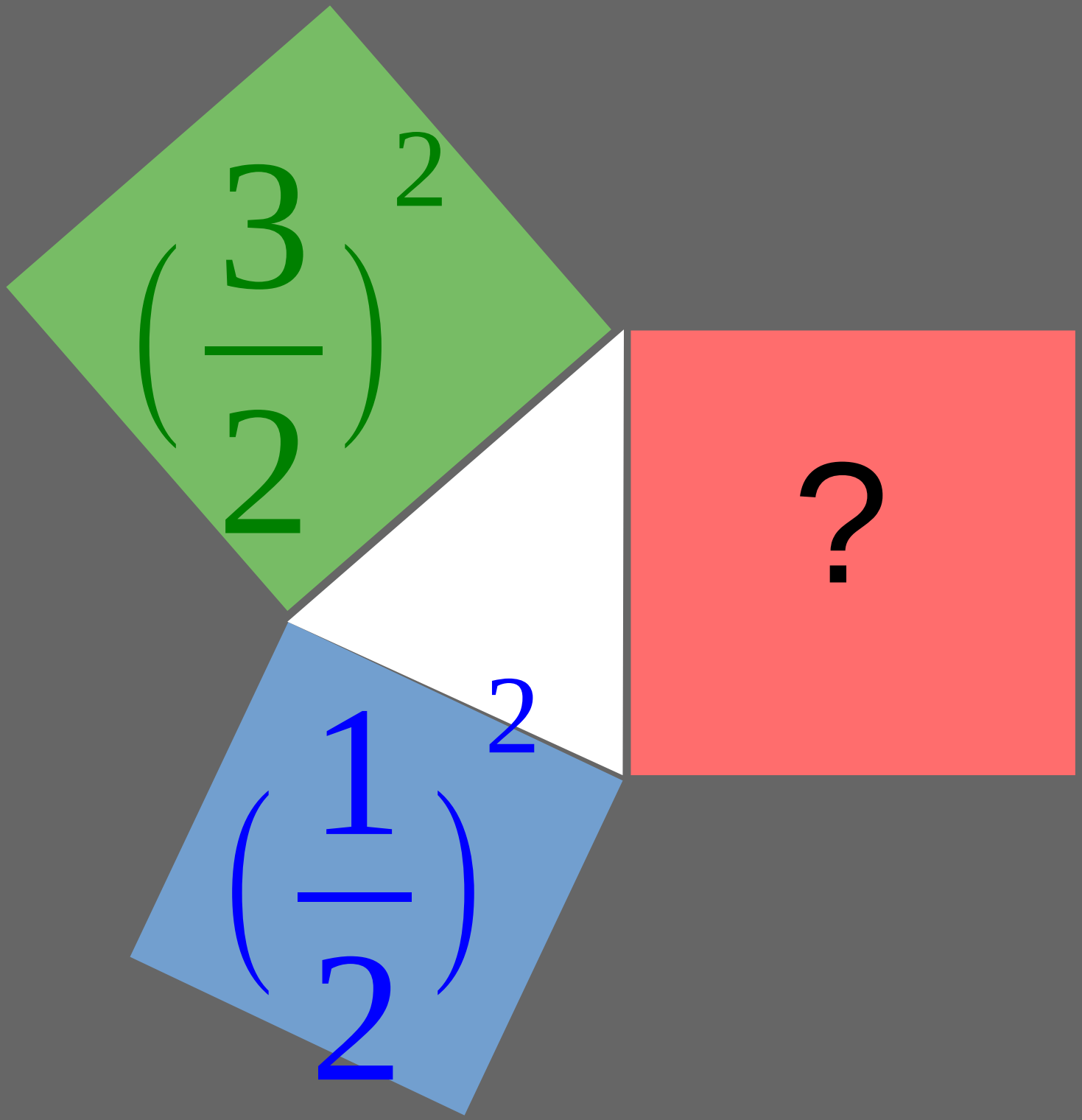

25/9
29/9
4/9

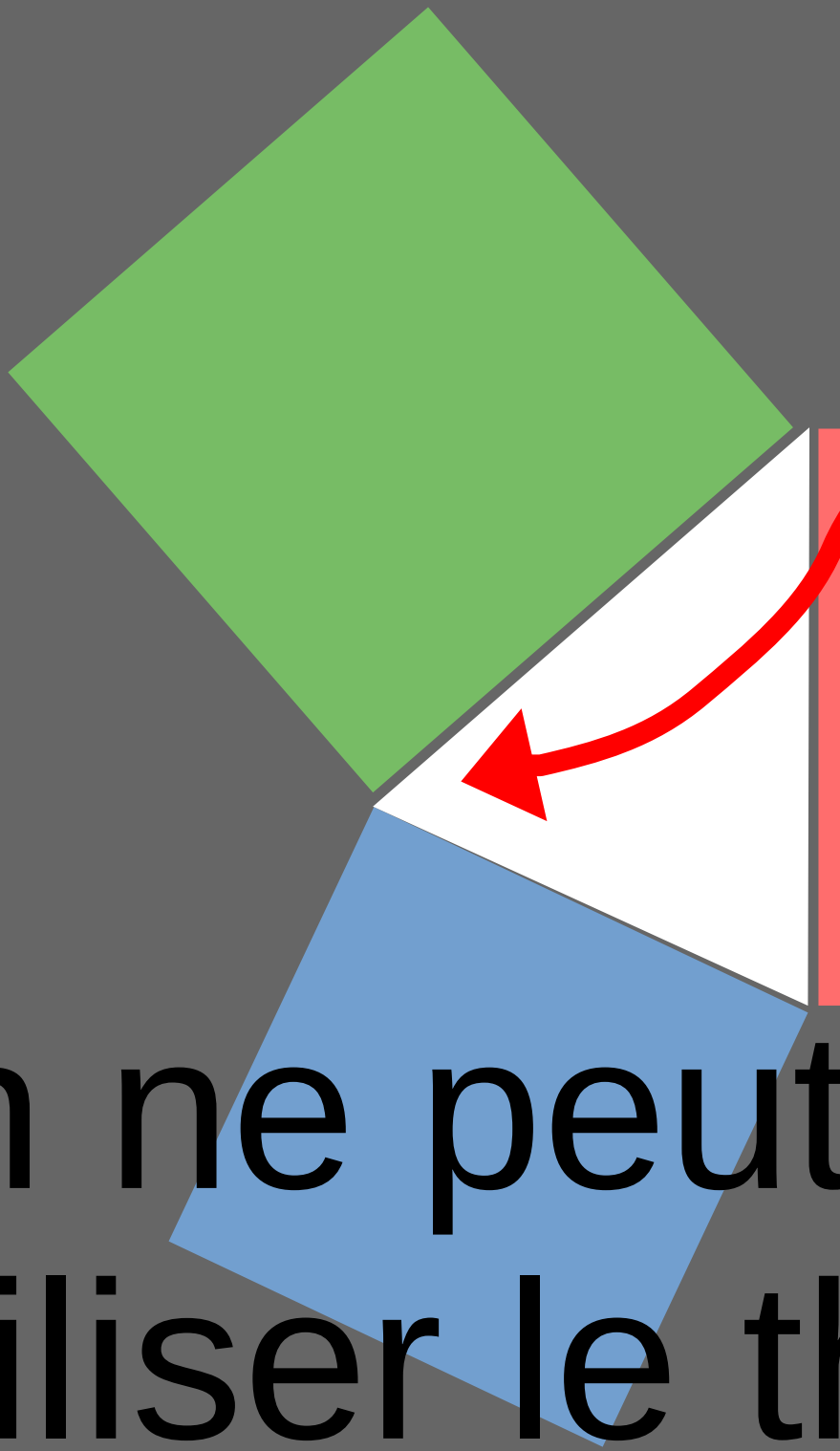

$\frac{25}{9}$
$\frac{27}{9}+\frac{2}{9}$
$\frac{4}{9}$


$\frac{25}{9}$
$3+\frac{2}{9}$
$\frac{4}{9}$


$\left(\frac{10}{7}\right)^2$
?
$\left(\frac{6}{7}\right)^2$

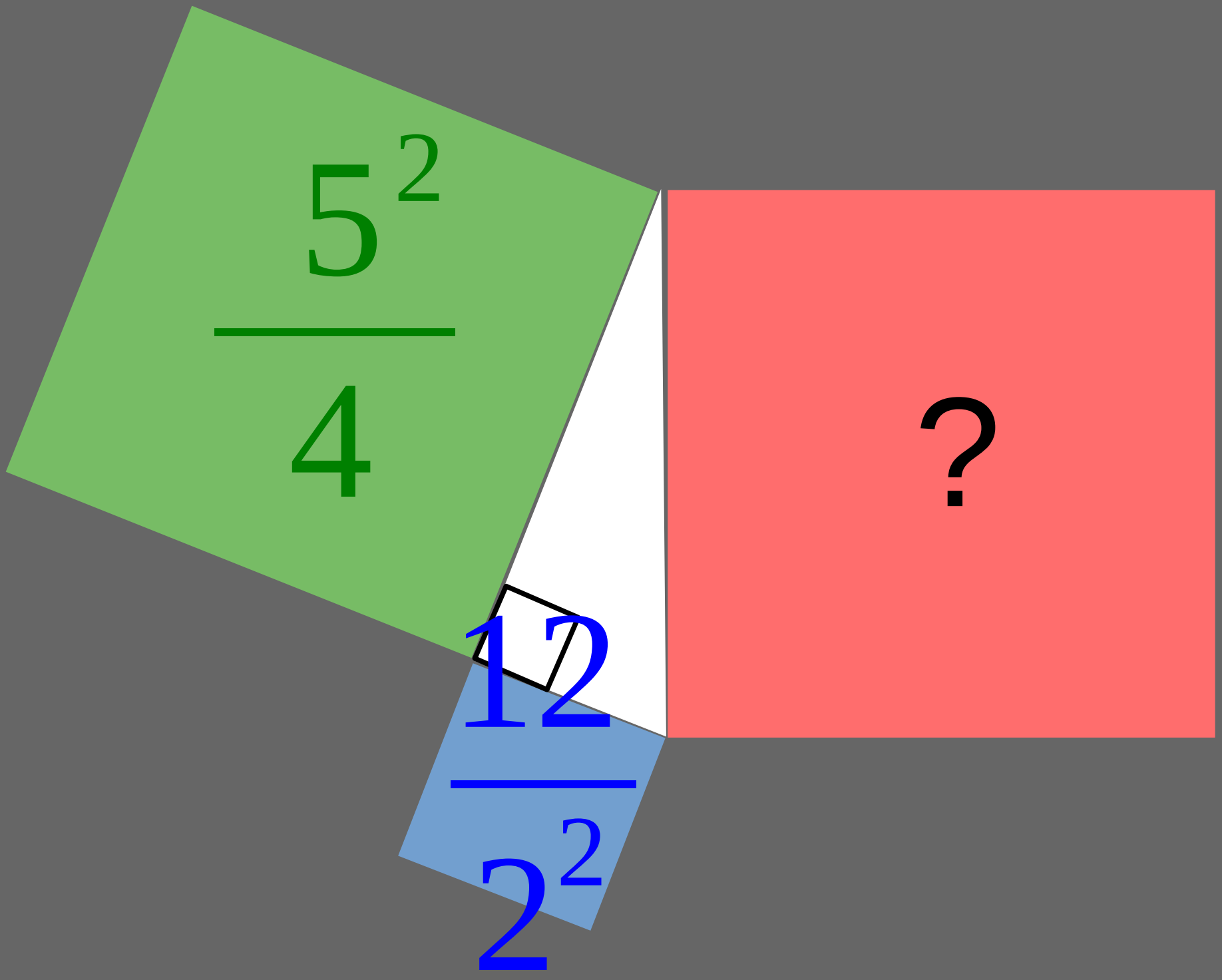

$\frac{100}{49}$
?
$\frac{36}{49}$

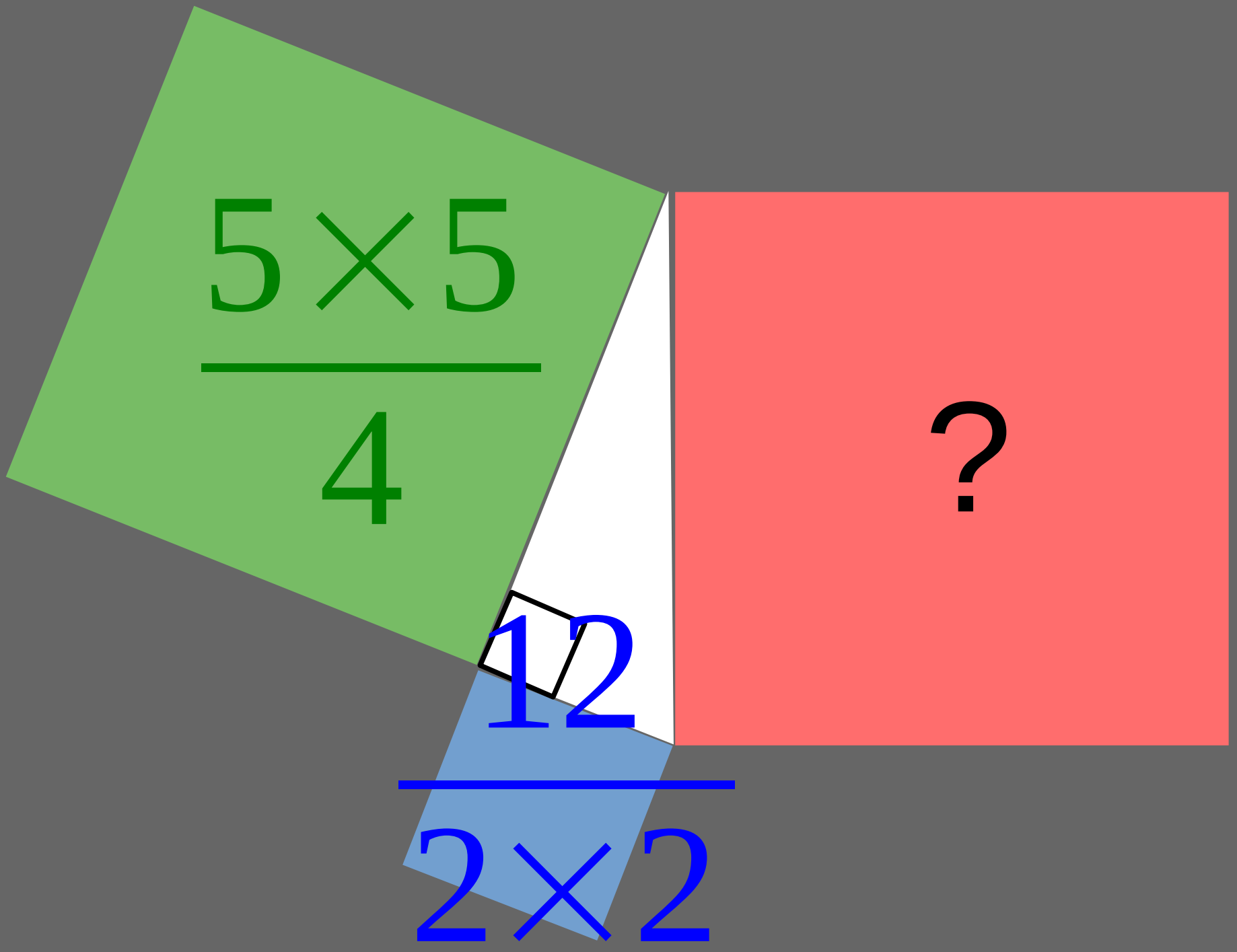

$\left(\frac{3}{2}\right)^2$
?
$\left(\frac{1}{2}\right)^2$

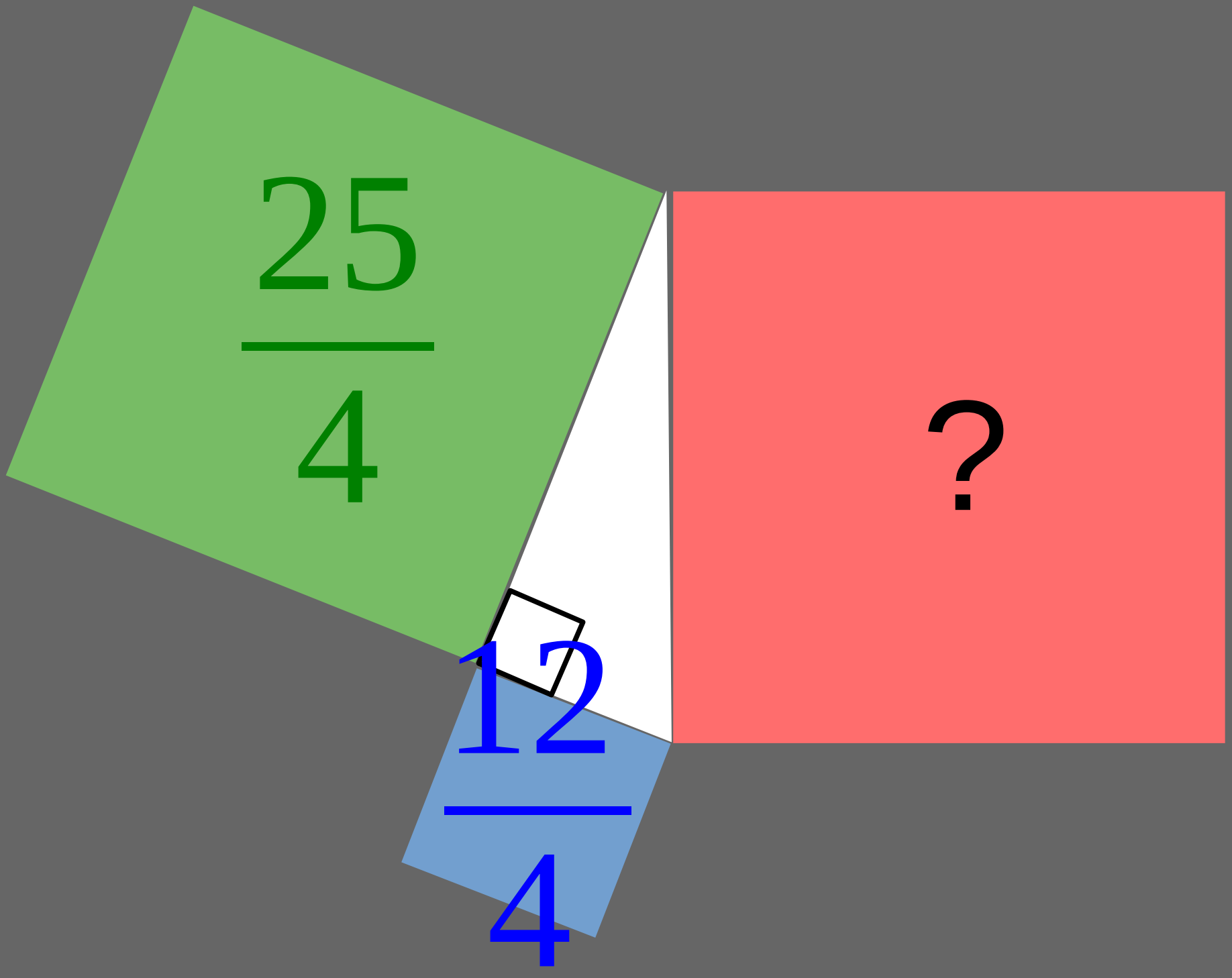


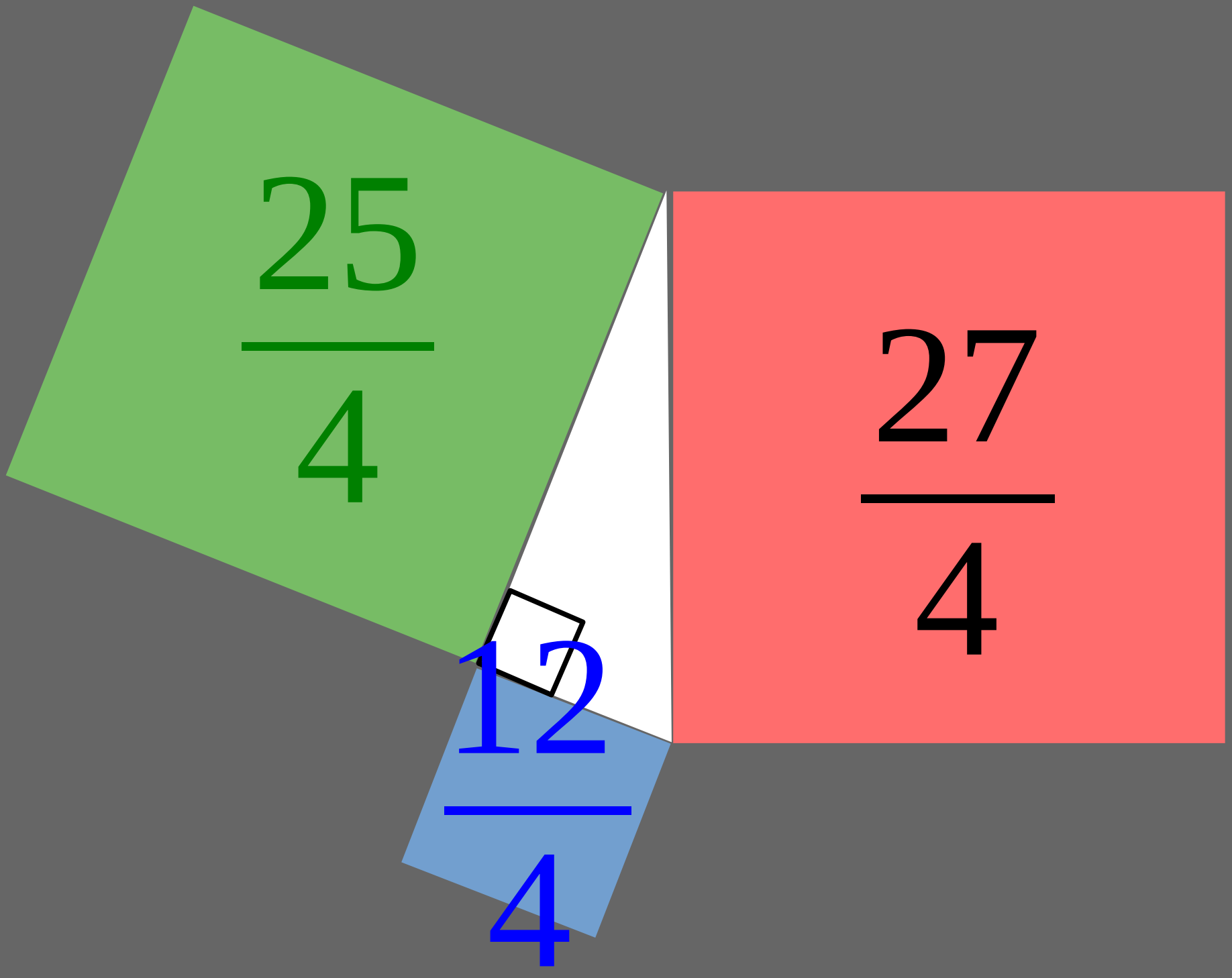
Pas d’angle droit :

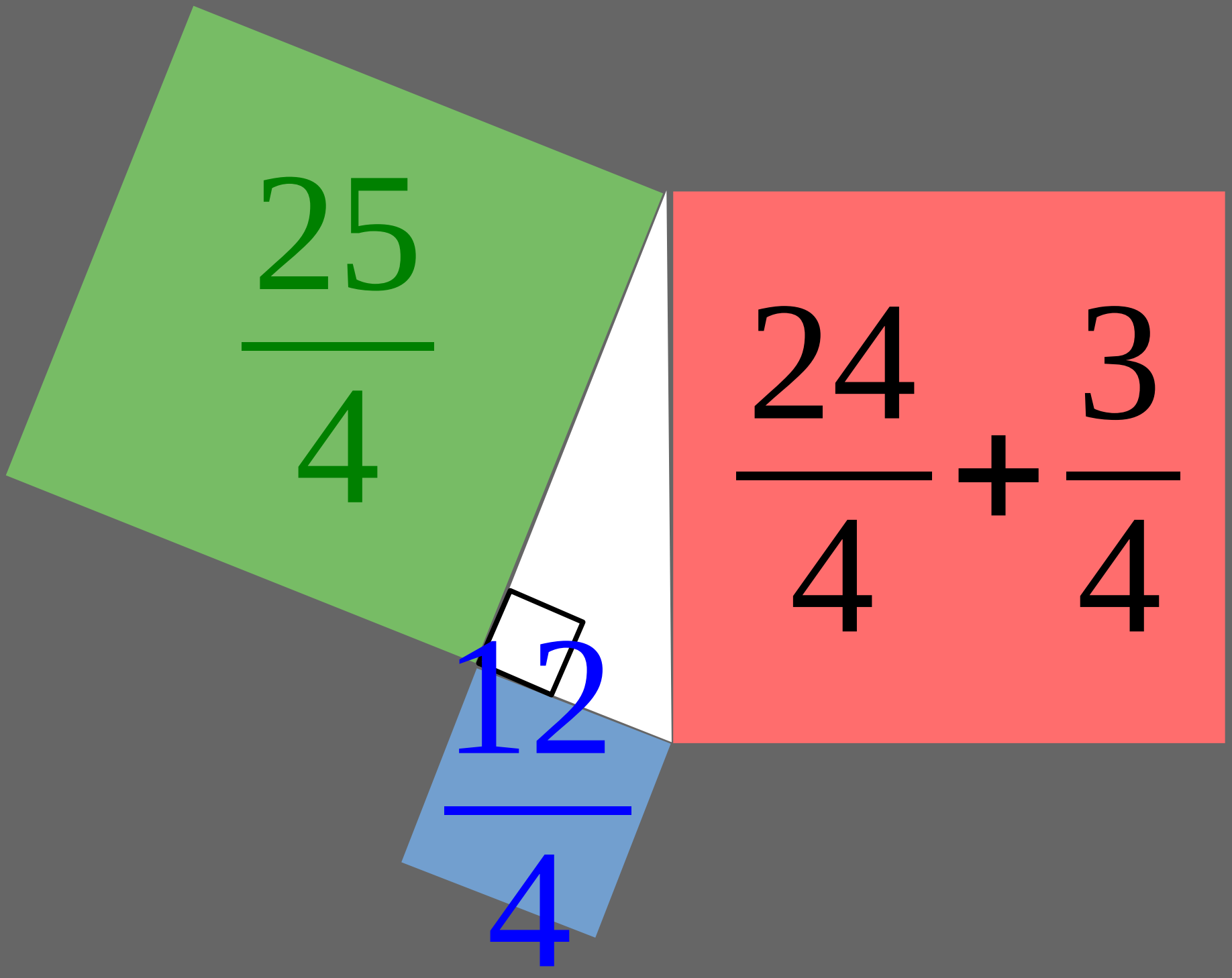
on ne peut pas utiliser le théorème

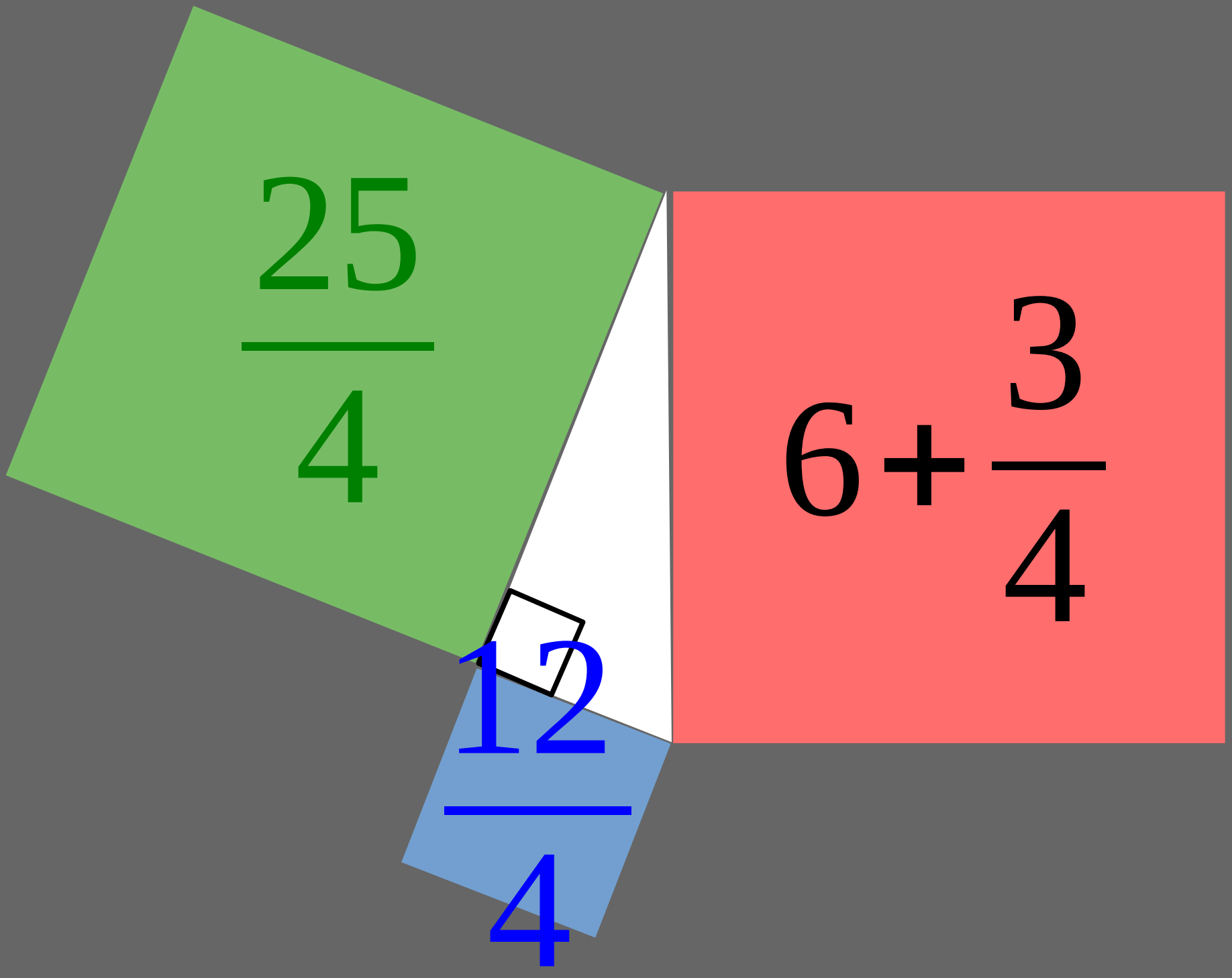

$\frac{5^2}{4}$
?
$\frac{12}{2^2}$

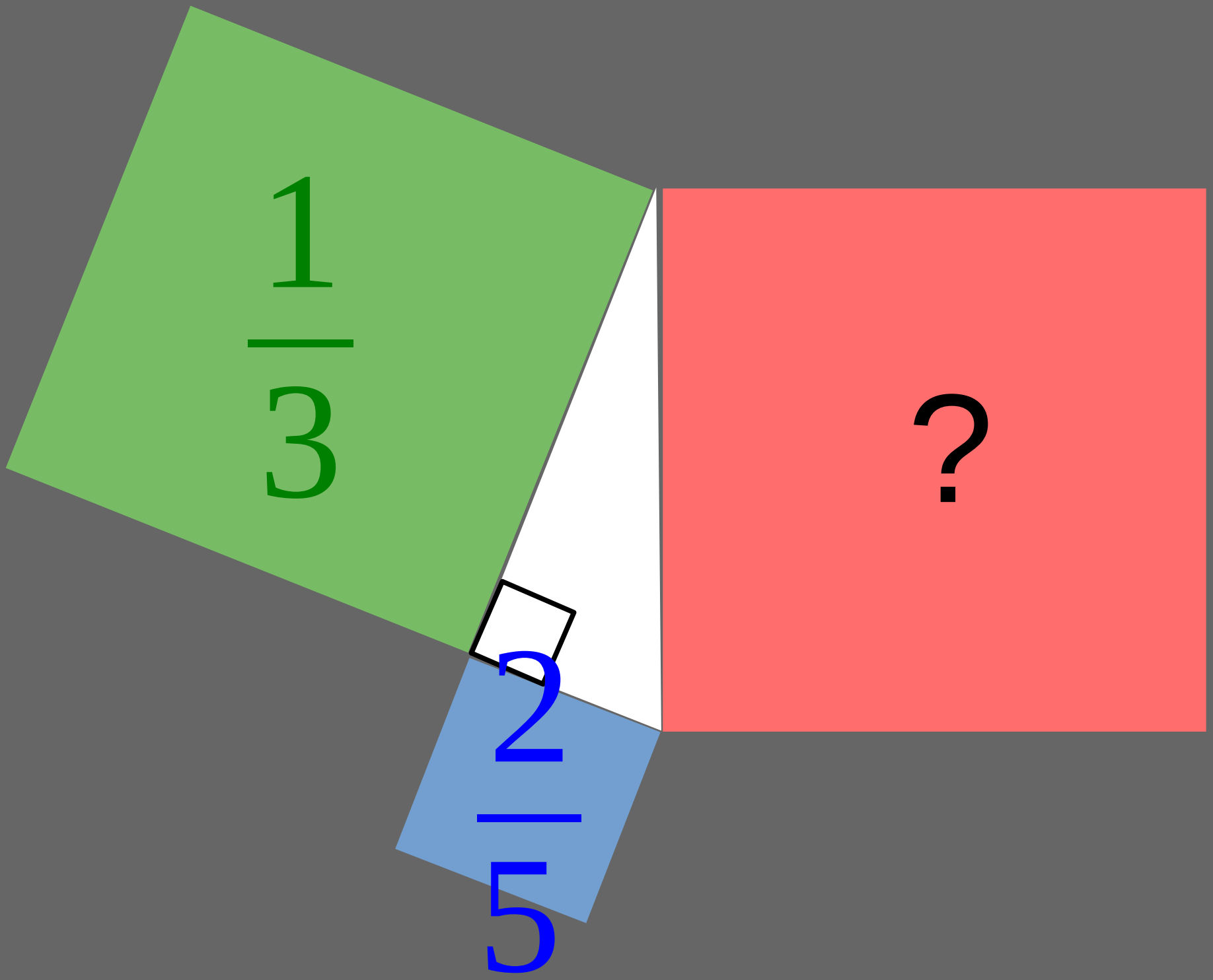

5×5
4
?
12
2×2


25/4
?
12/4


25/4
27/4
12/4


$\frac{25}{4}$
$\frac{24}{4}+\frac{3}{4}$
$\frac{12}{4}$


$\frac{25}{4}$
$6+\frac{3}{4}$
$\frac{12}{4}$


1/3
?
2/5

Rappel :

Fractions : *dénominateurs différents :*

$$\frac{a}{c}+\frac{b}{d}=\frac{a\times d}{c\times d}+\frac{b\times c}{d\times c}$$

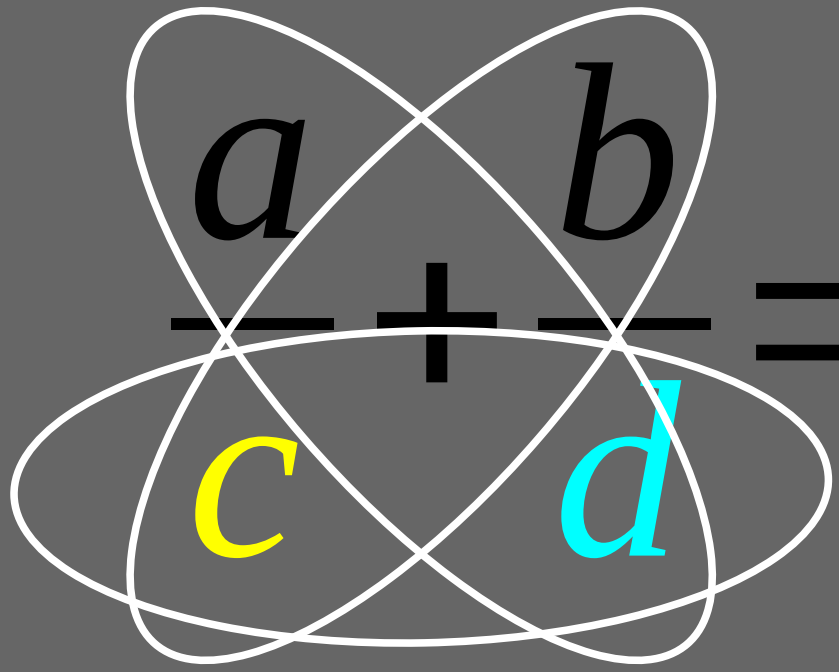
Fractions : *dénominateurs différents* :

$$\frac{a}{c}+\frac{b}{d}=\frac{a\times d+b\times c}{c\times d}$$

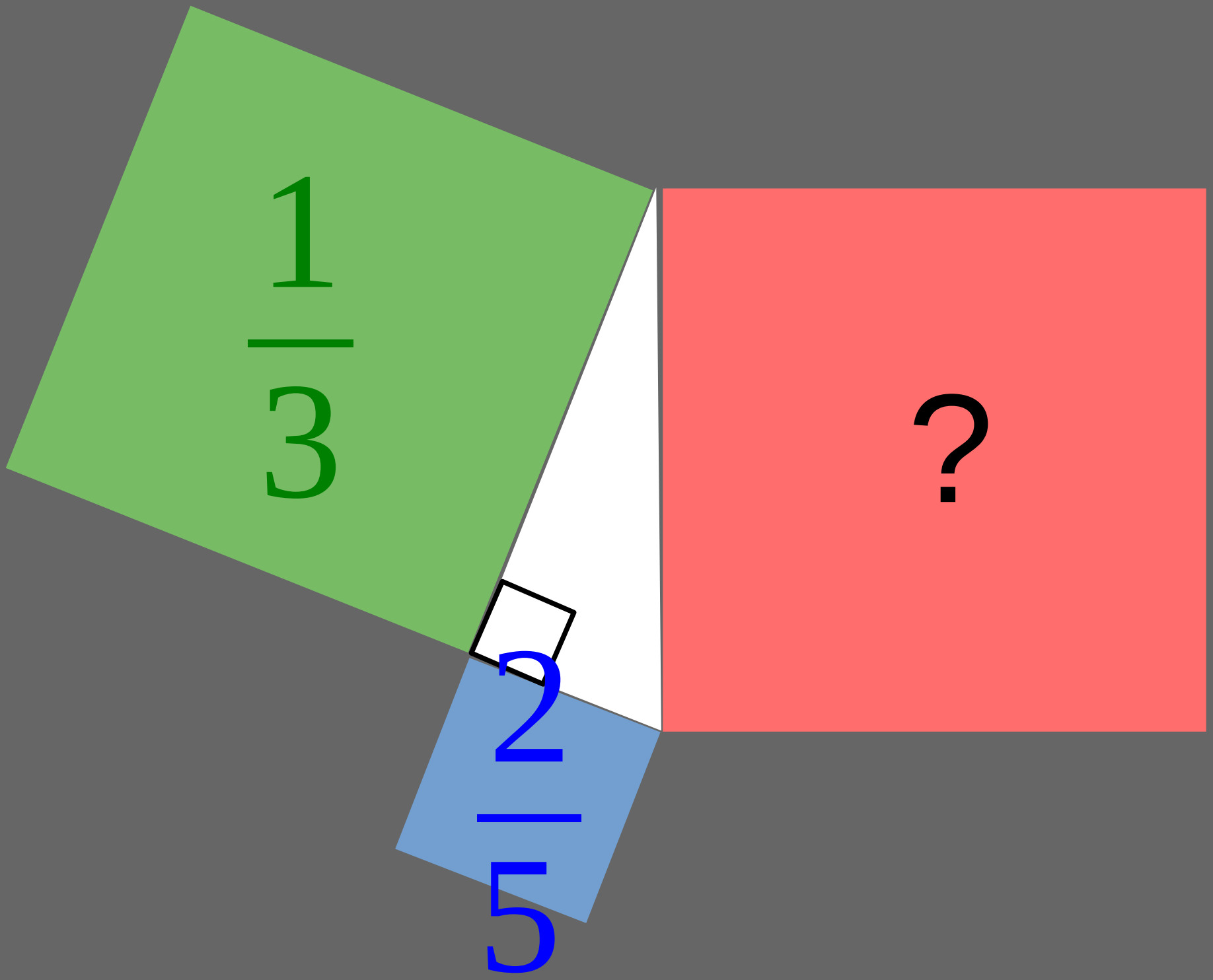
Fractions : *dénominateurs différents* :

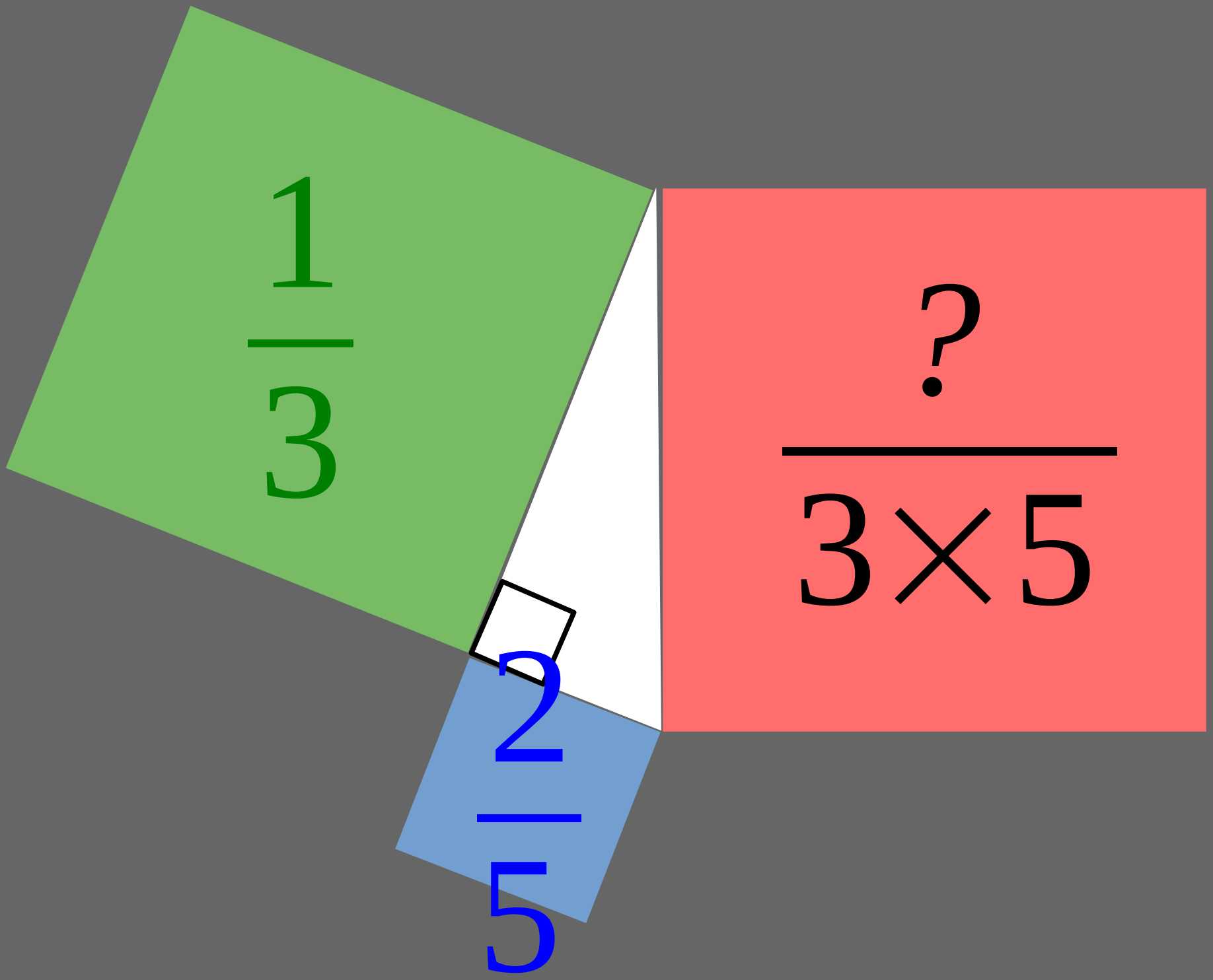
$$\frac{a}{c}+\frac{b}{d}=\frac{a\,d+b\,c}{c\,d}$$

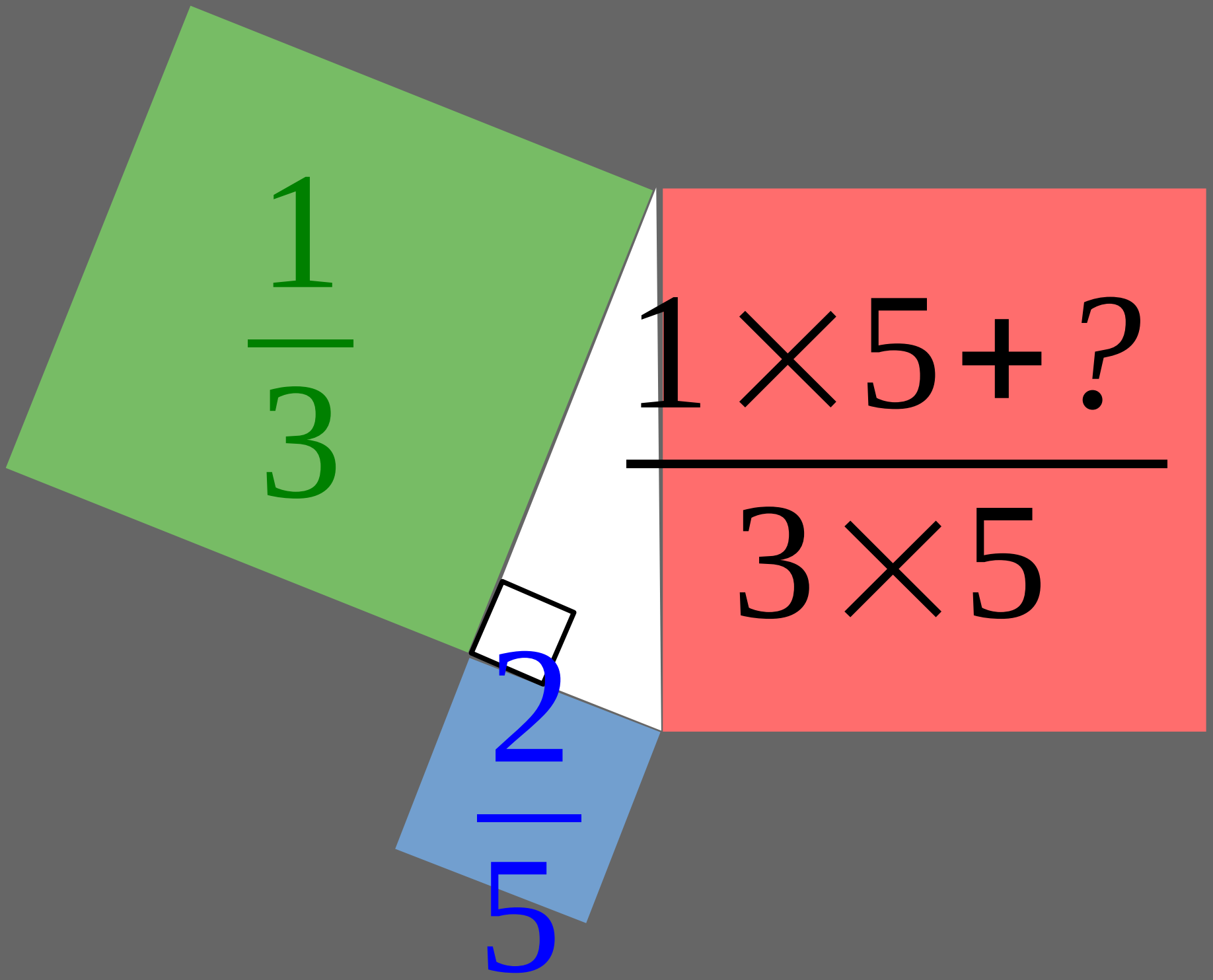
Fractions : *dénominateurs différents :*

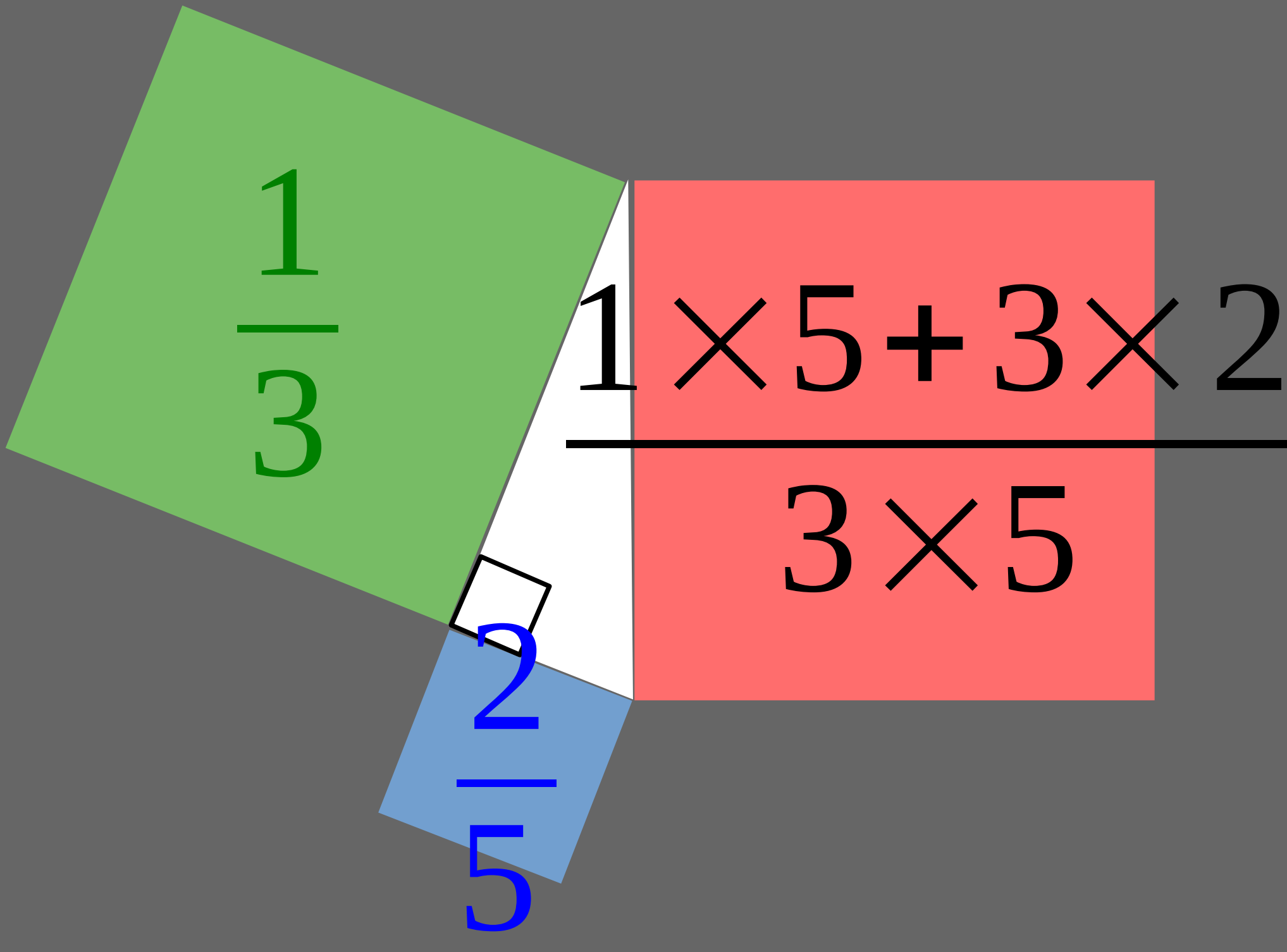


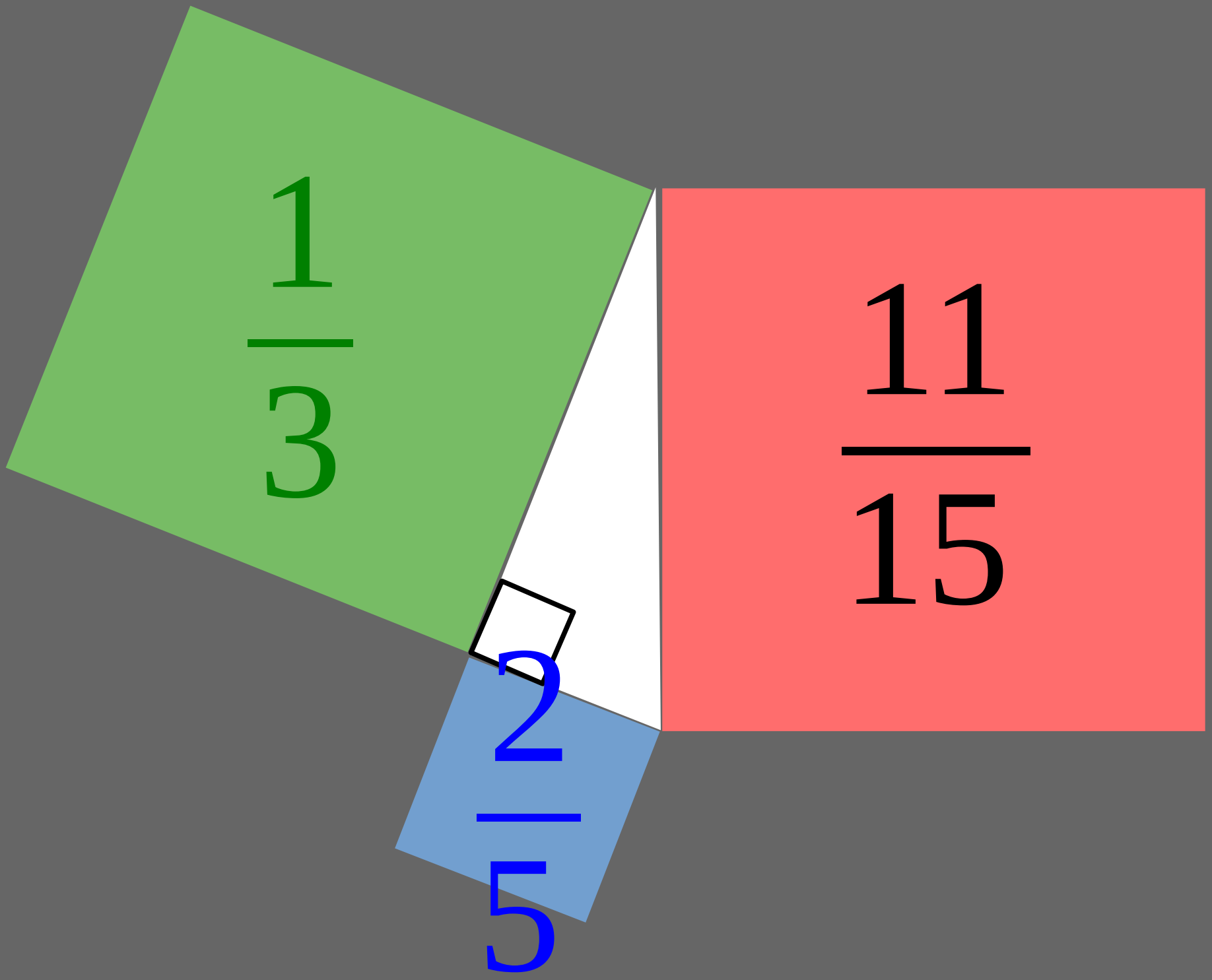
$$\frac{a}{c} + \frac{b}{d} = \frac{a\,d + b\,c}{c\,d}$$

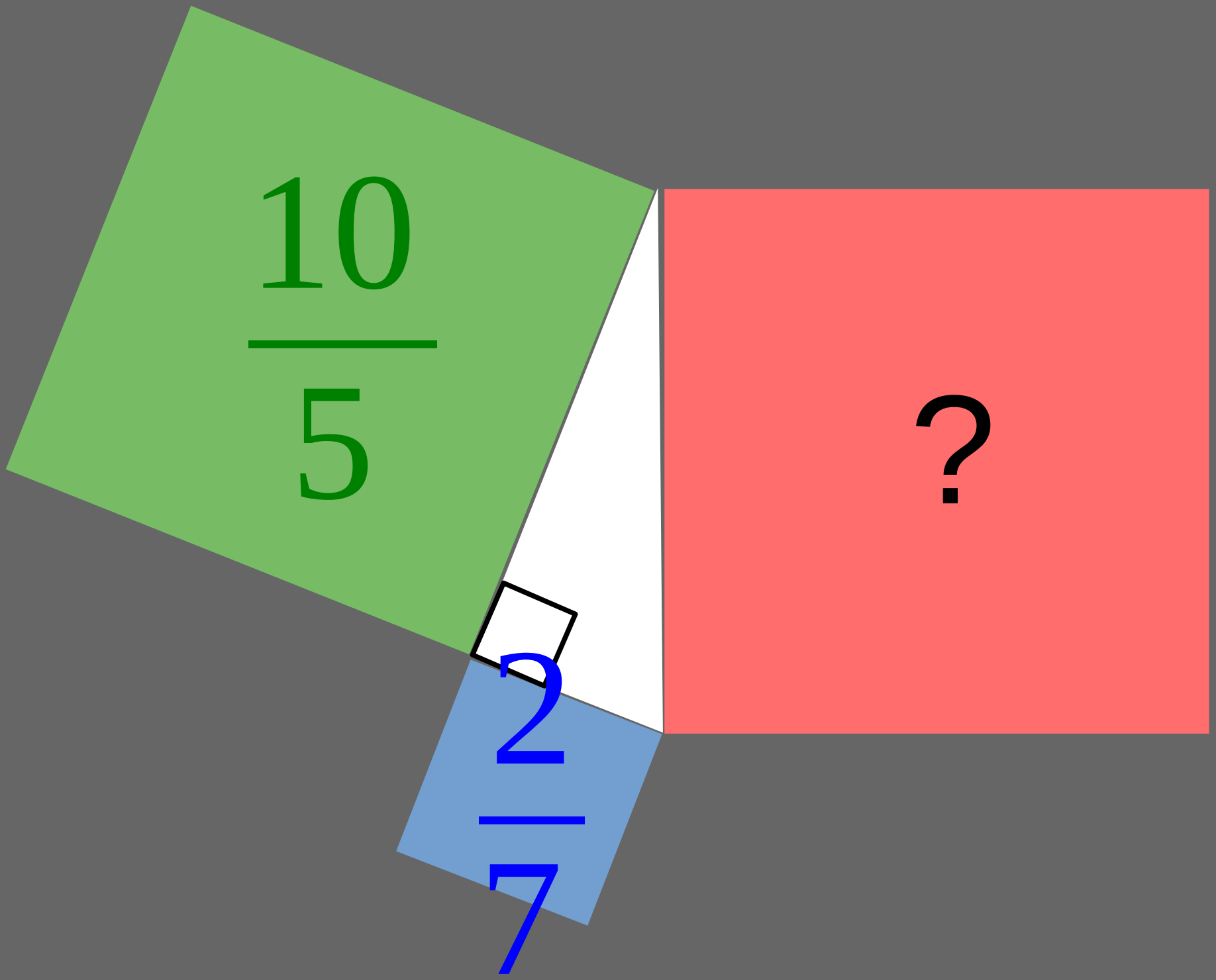

1/3
?
2/5

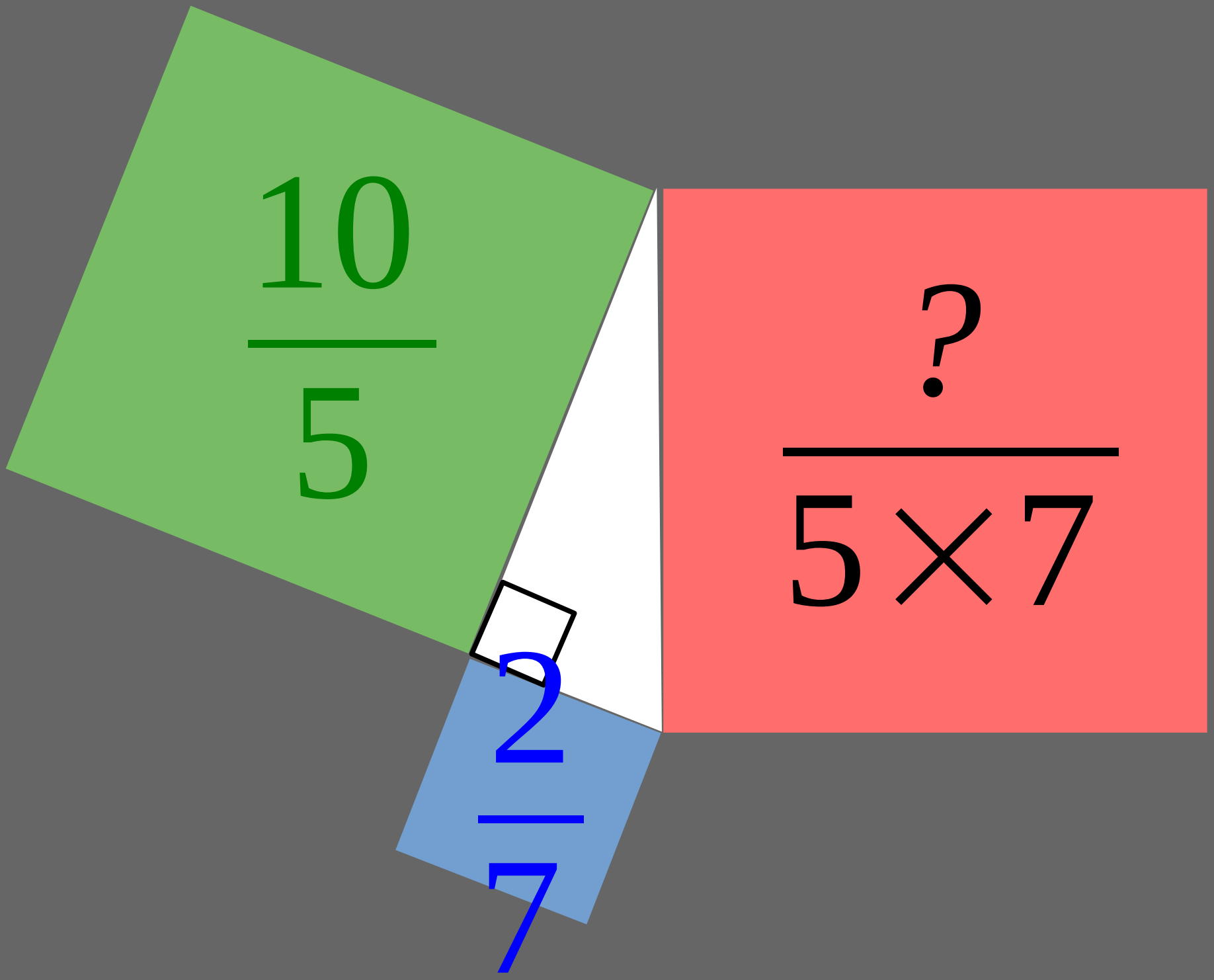

1
3
?
3×5
2
5

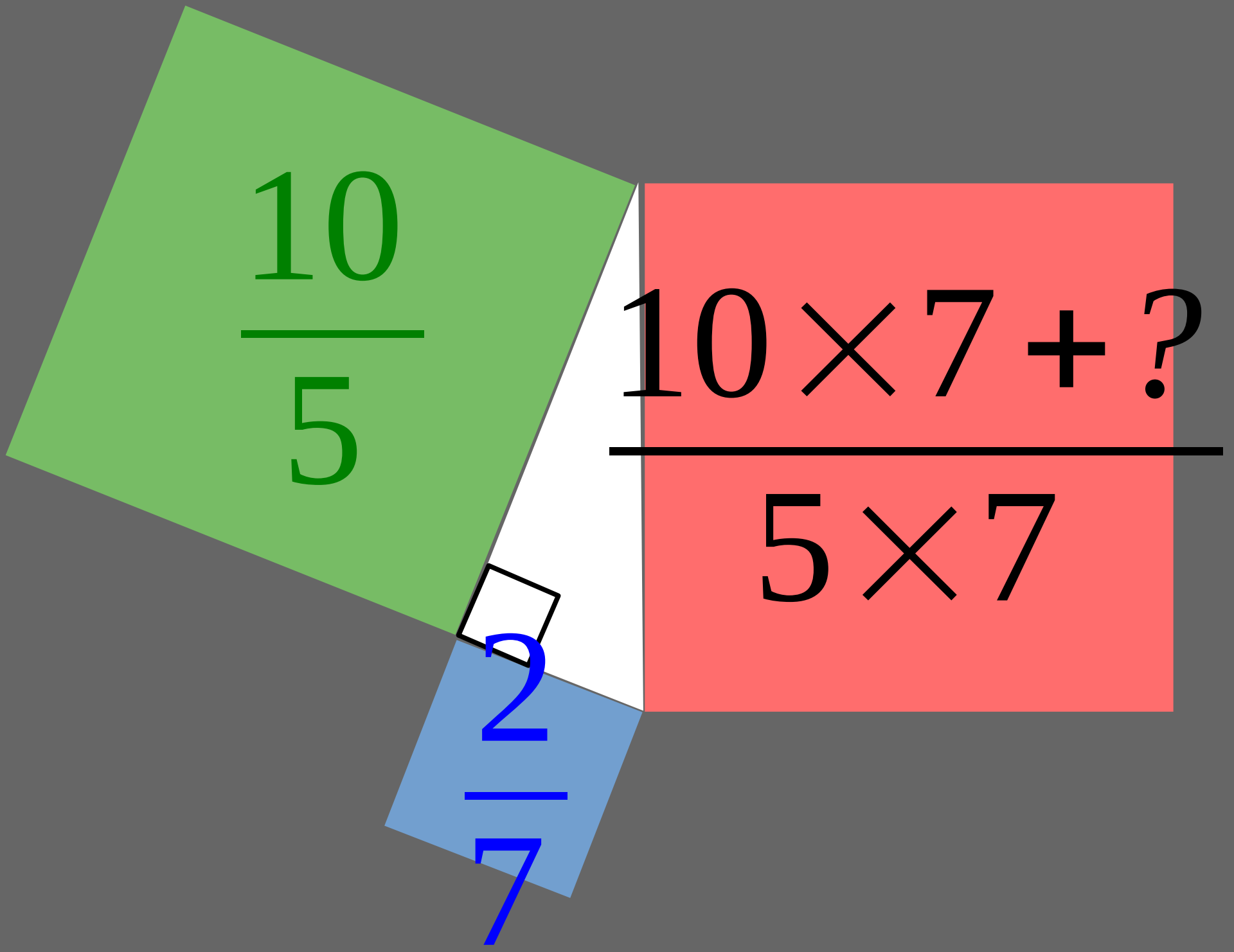

1/3
2/5
1×5+?/3×5

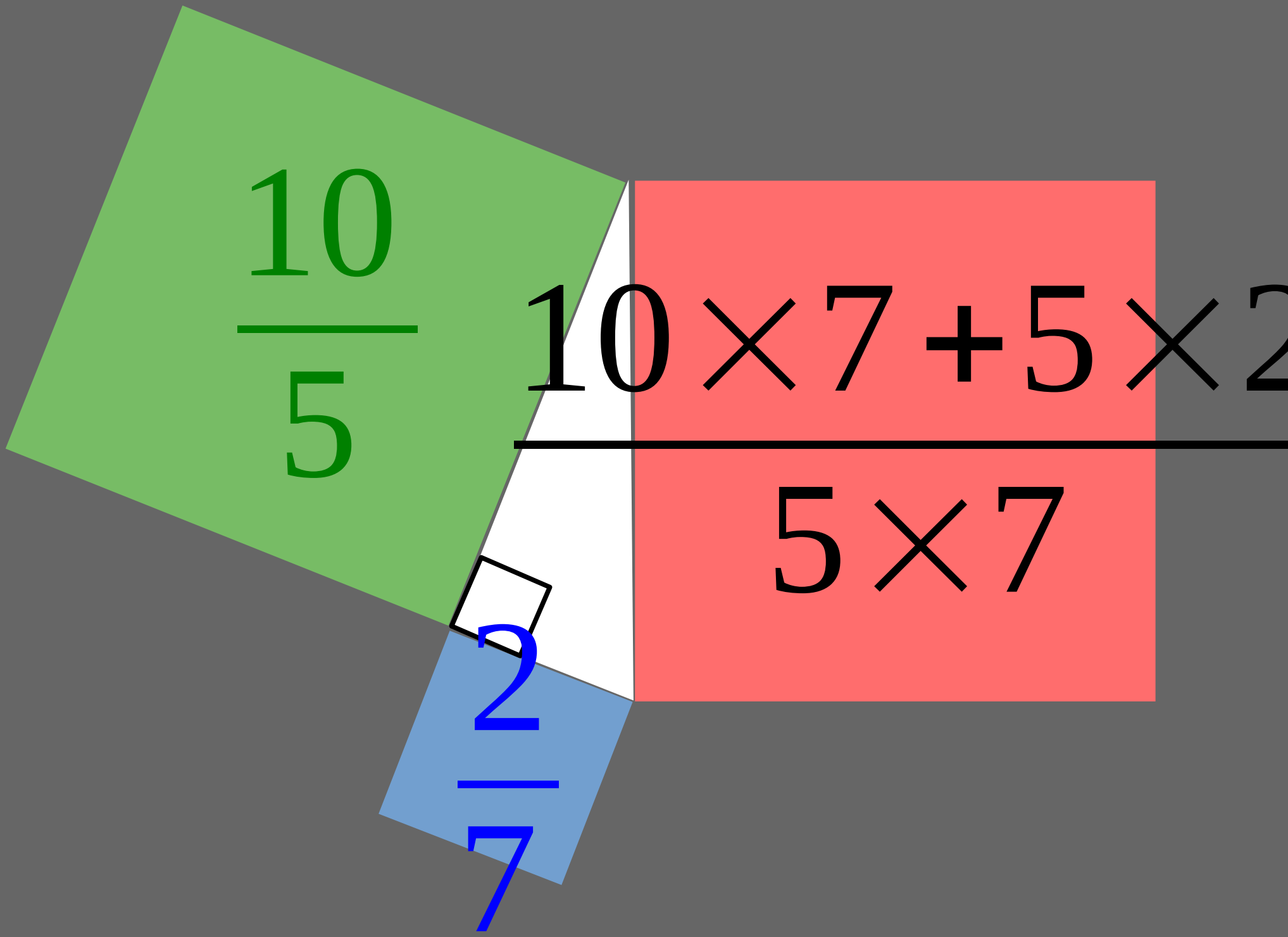

$\frac{1}{3}$
$\frac{1\times5+3\times2}{3\times5}$
$\frac{2}{5}$

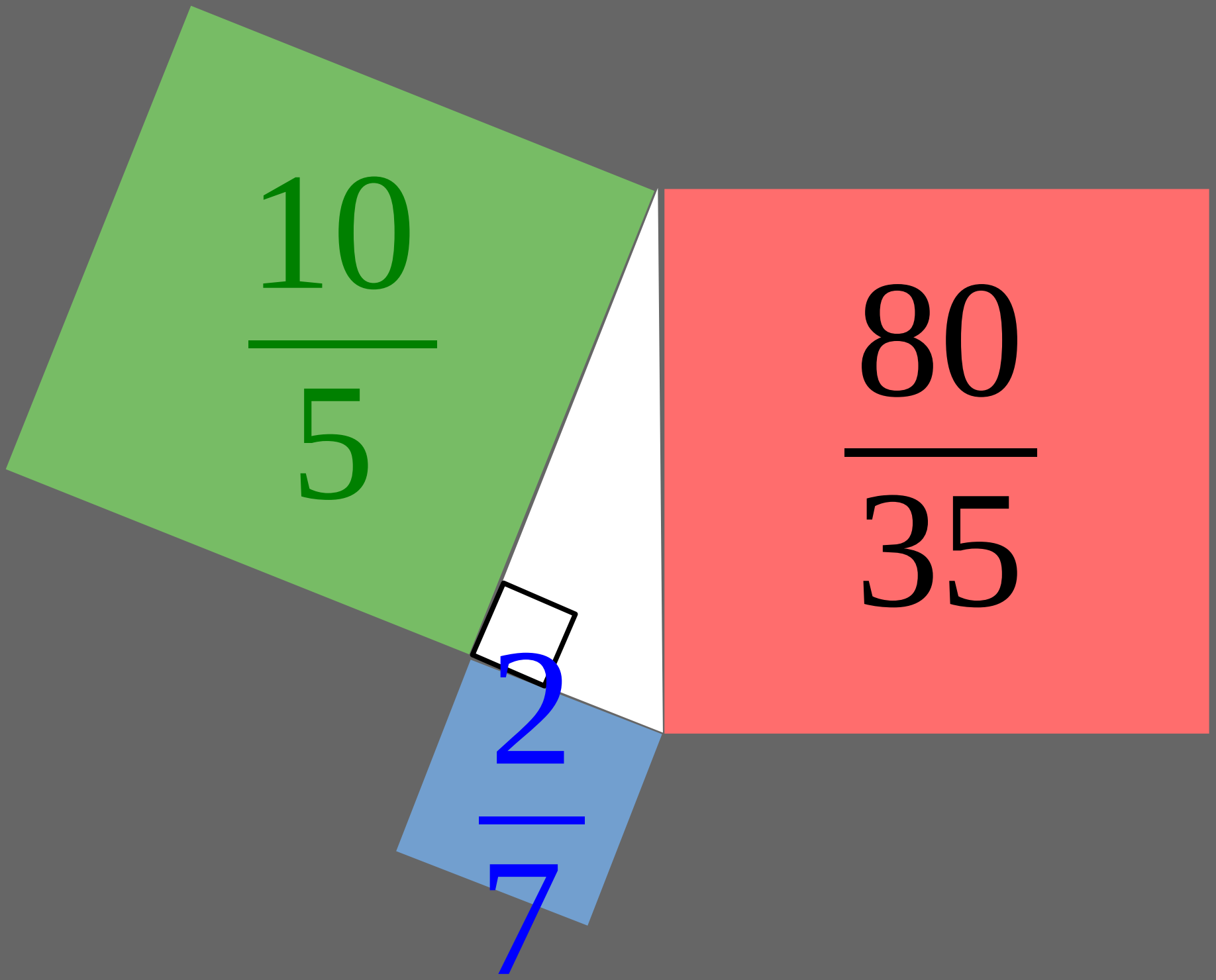

1/3
11/15
2/5

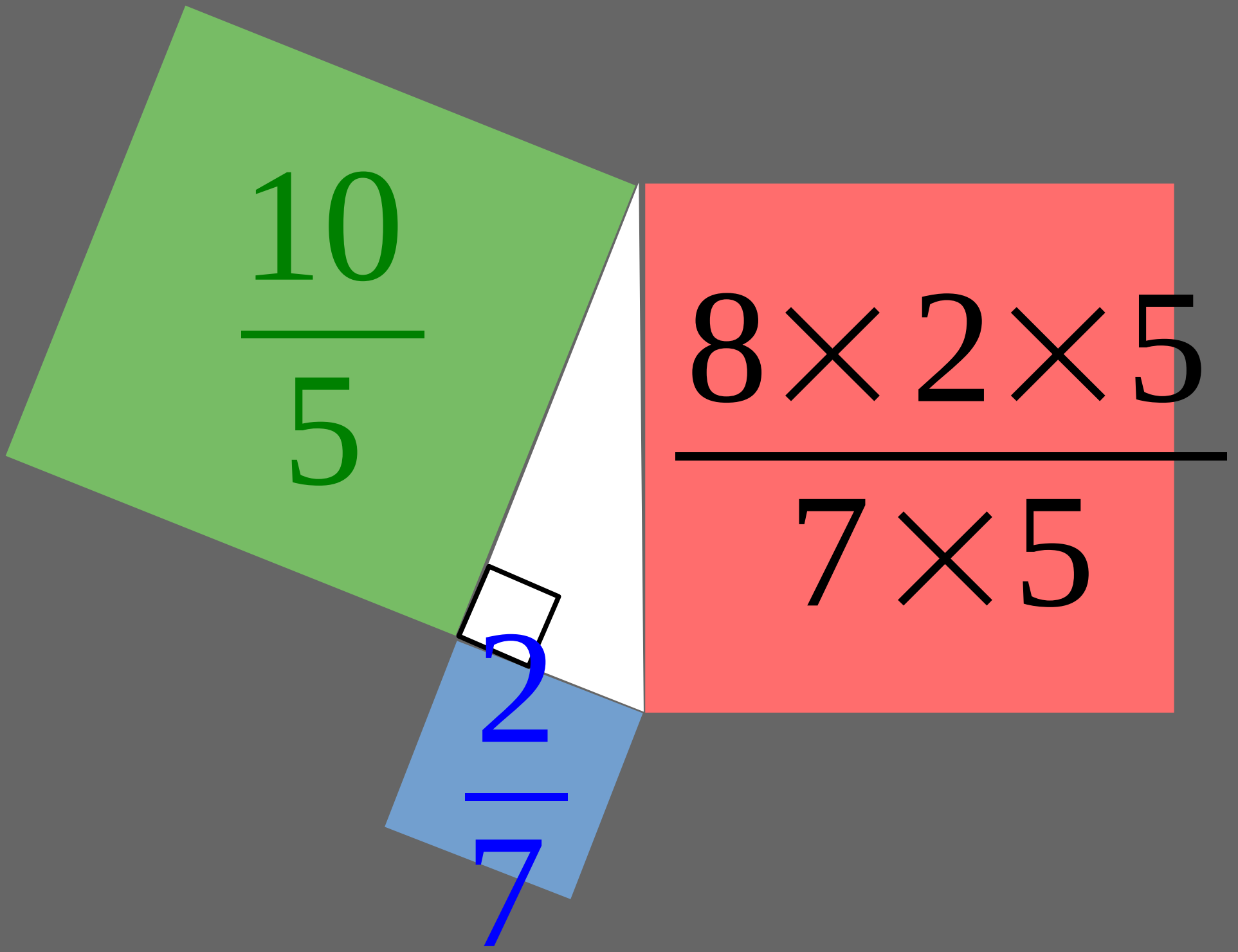

10
5
?
2
7

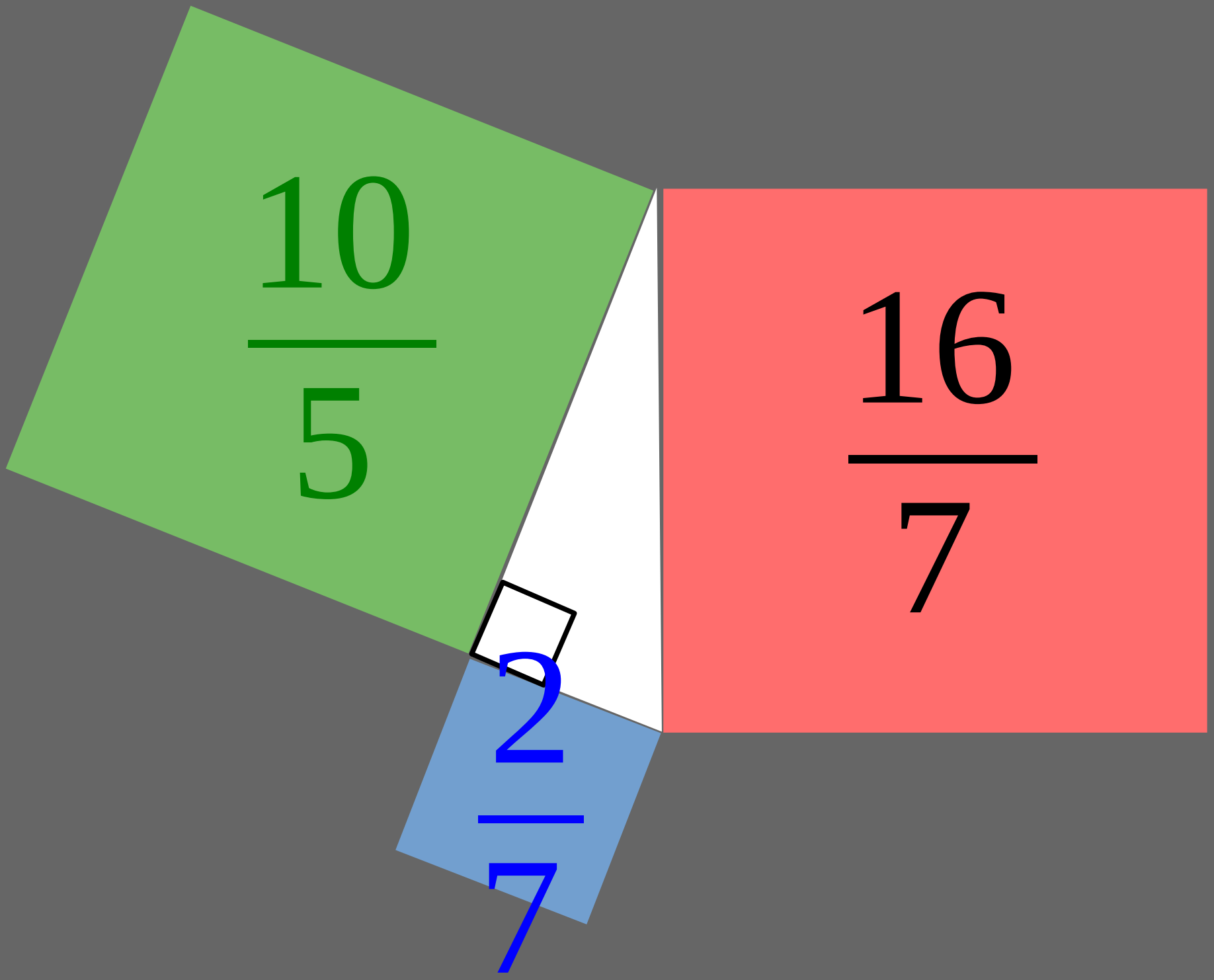

10
5
?
5×7
2
7


$\frac{10}{5}$
$\frac{10\times7+?}{5\times7}$
$\frac{2}{7}$

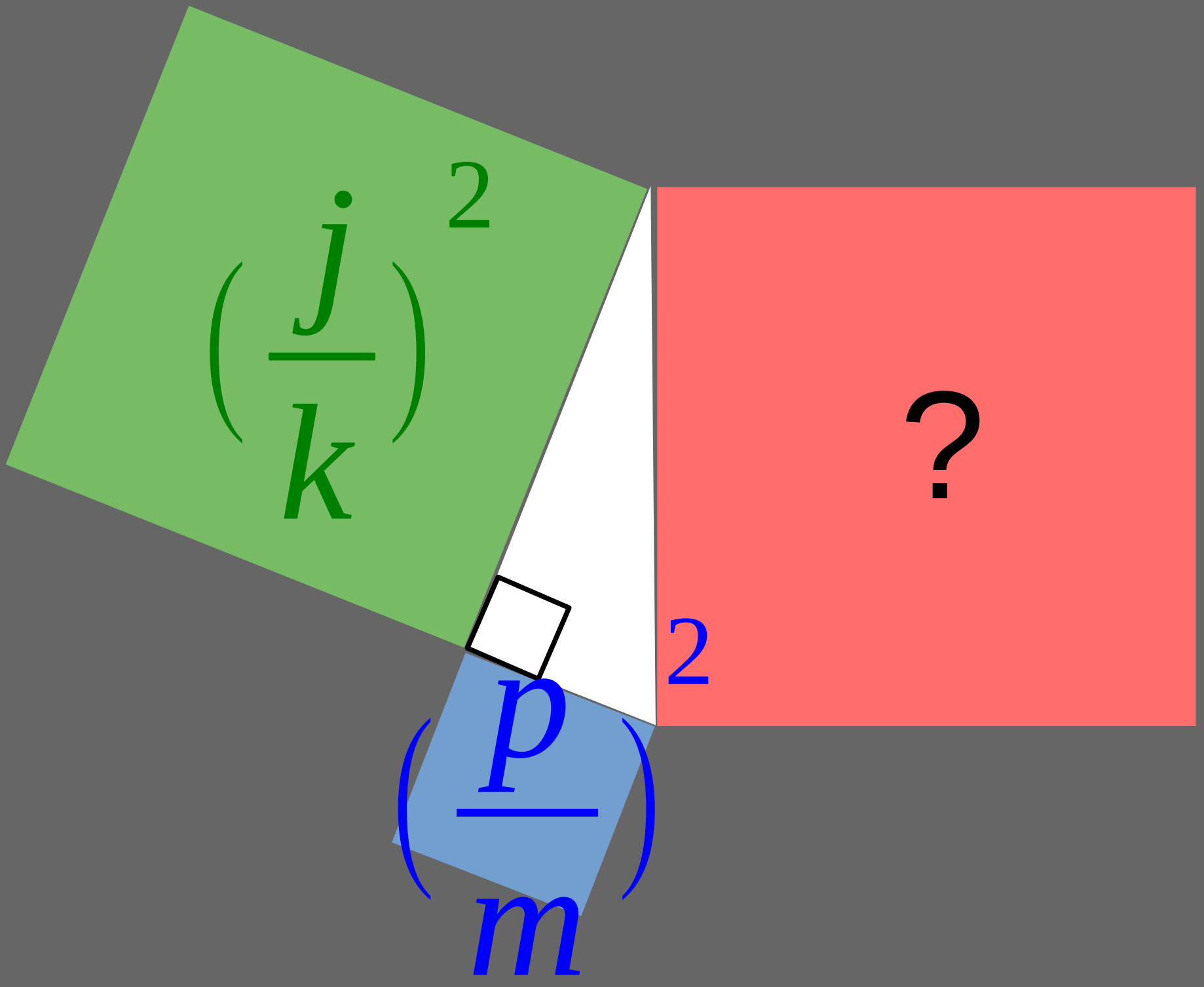

$\frac{10}{5}$
$\frac{10\times7+5\times2}{5\times7}$
$\frac{2}{7}$

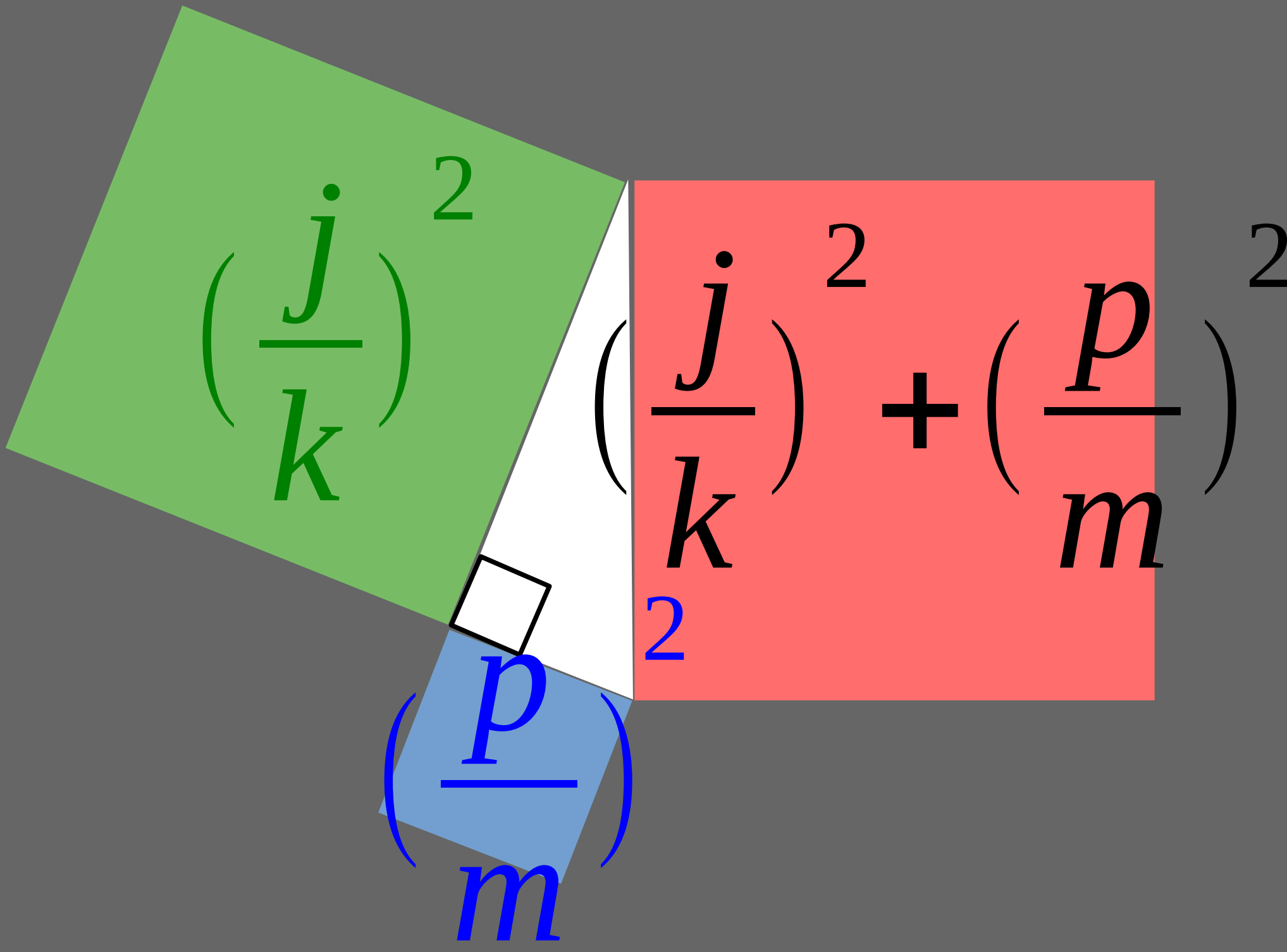

10
5
80
35
2
7

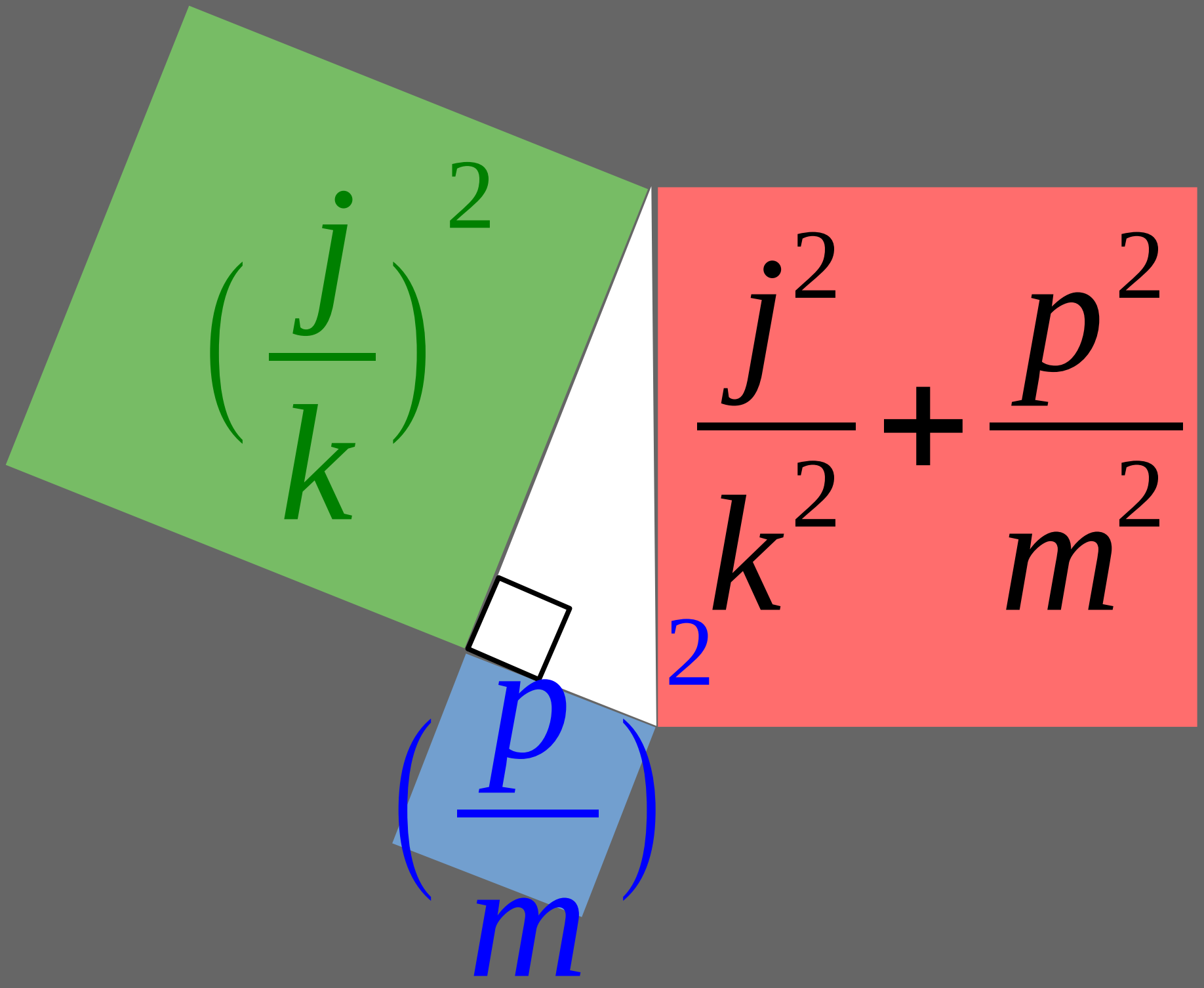

$\frac{10}{5}$
$\frac{8\times2\times5}{7\times5}$
$\frac{2}{7}$

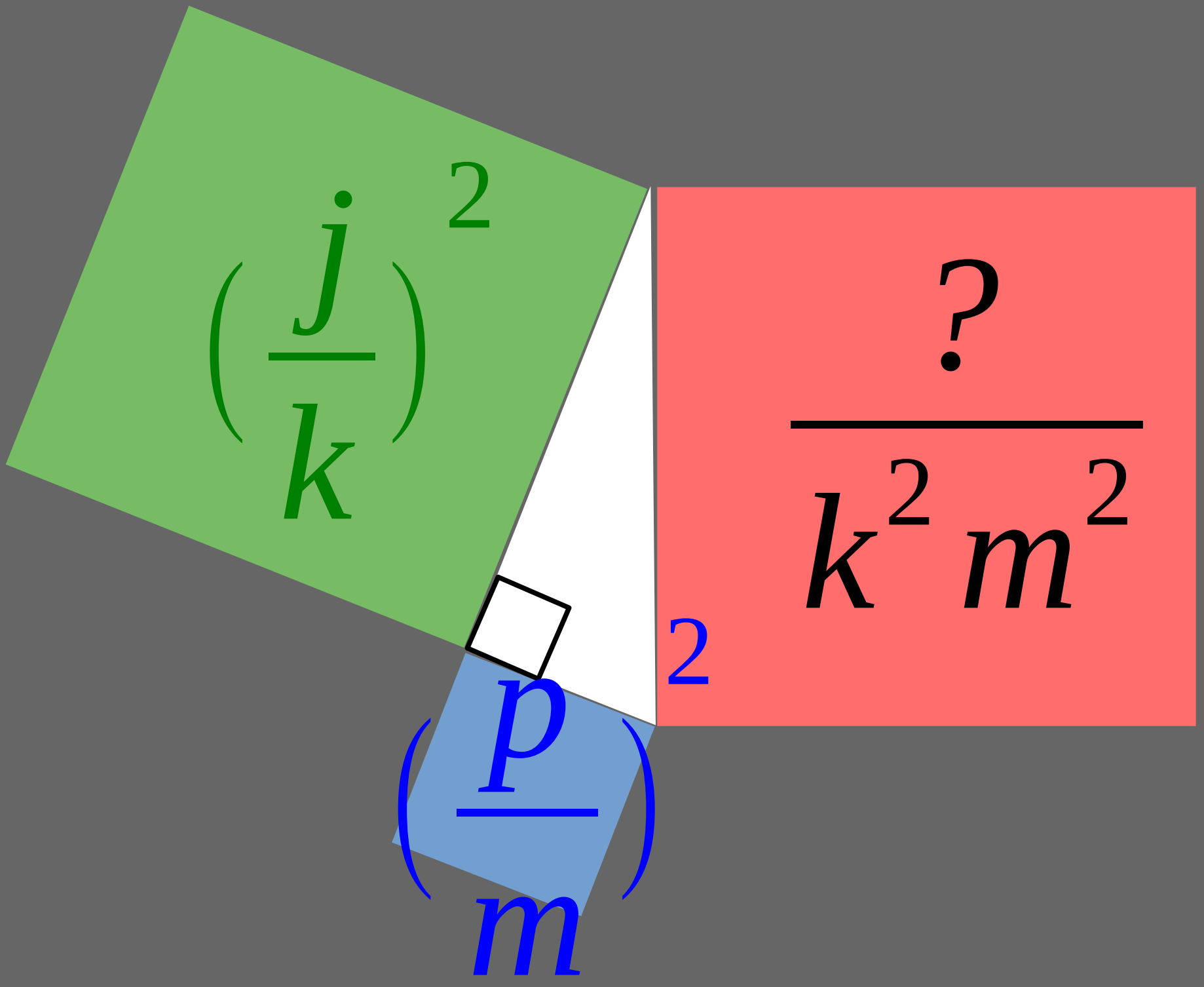

10/5
16/7
2/7

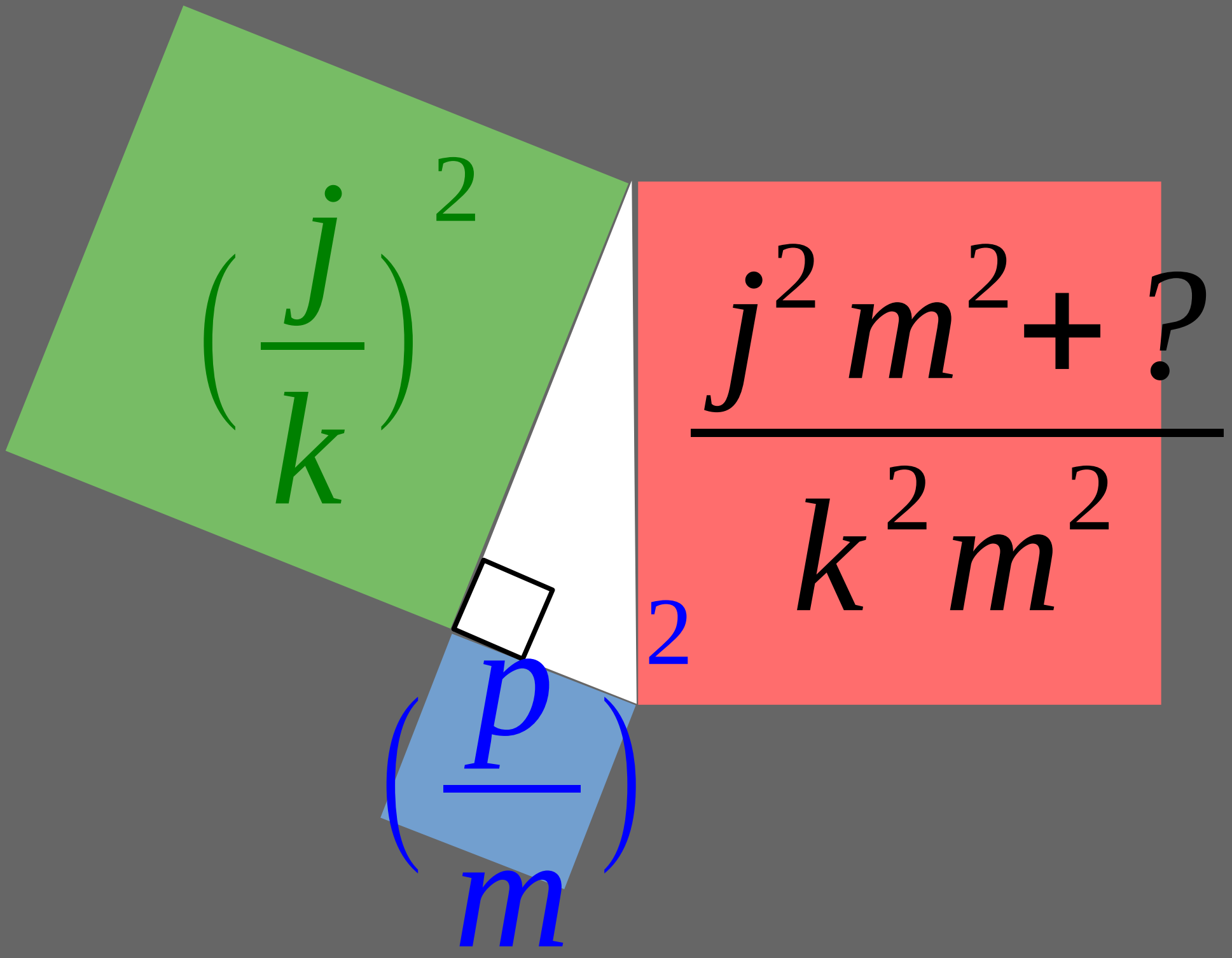
Défi

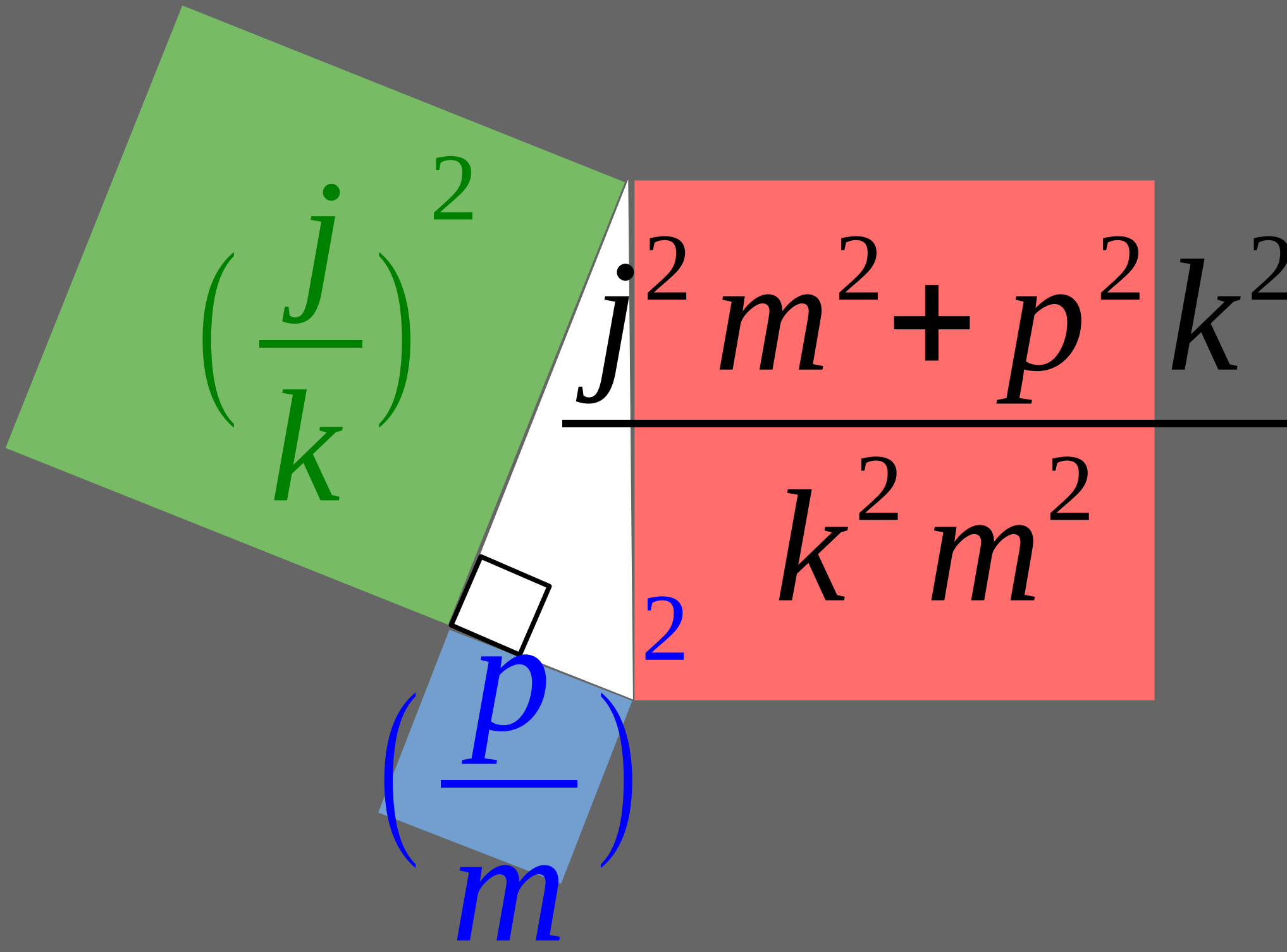

$\left(\frac{j}{k}\right)^2$
?
2
$\left(\frac{p}{m}\right)$


$\left(\frac{j}{k}\right)^2$
$\left(\frac{j}{k}\right)^2+\left(\frac{p}{m}\right)^2$
$\left(\frac{p}{m}\right)^2$

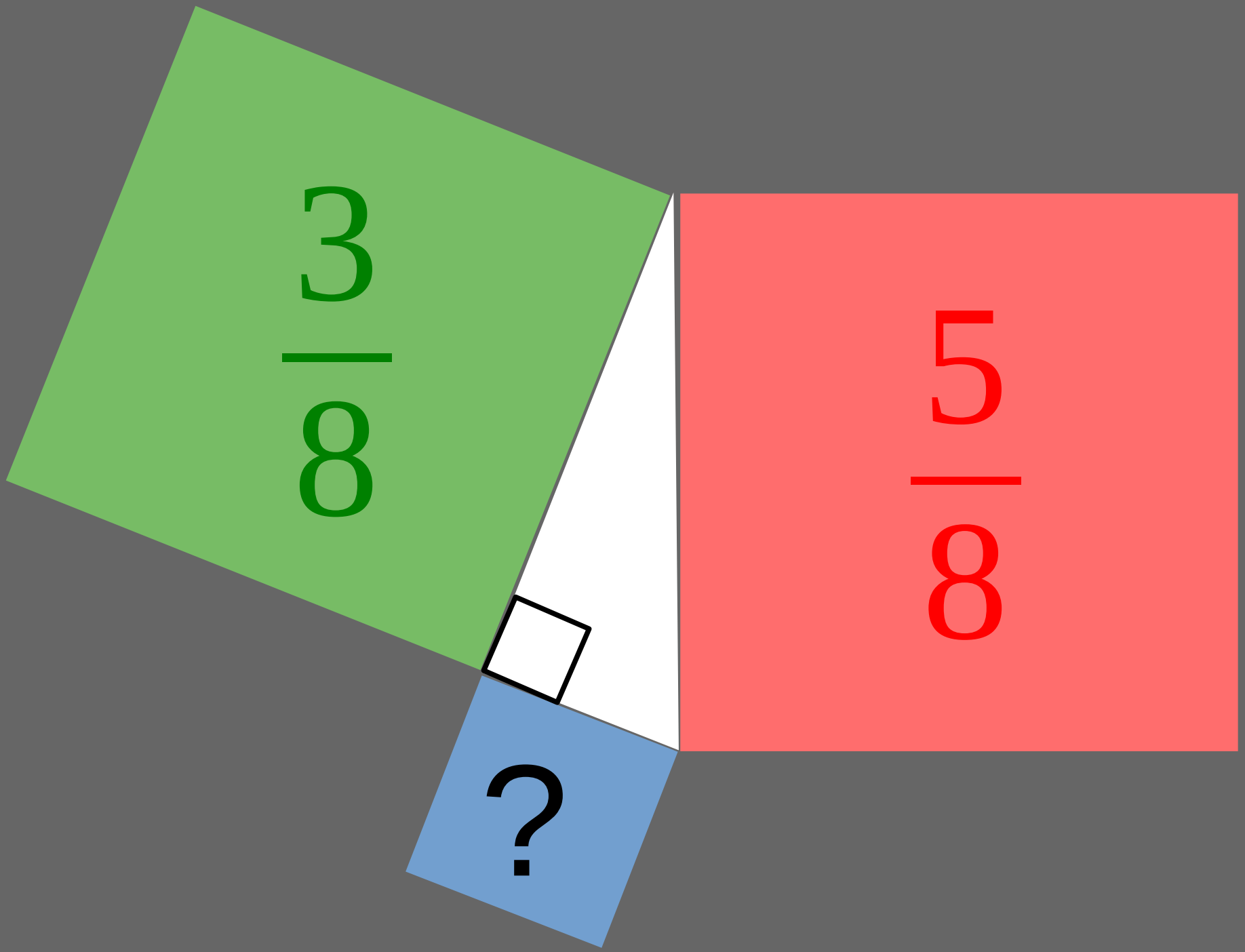

$\left(\frac{j}{k}\right)^2$
$\left(\frac{p}{m}\right)^2$
$\frac{j^2}{k^2}+\frac{p^2}{m^2}$


$\left(\frac{j}{k}\right)^2$
$\frac{?}{k^2 m^2}$
2
$\left(\frac{p}{m}\right)$

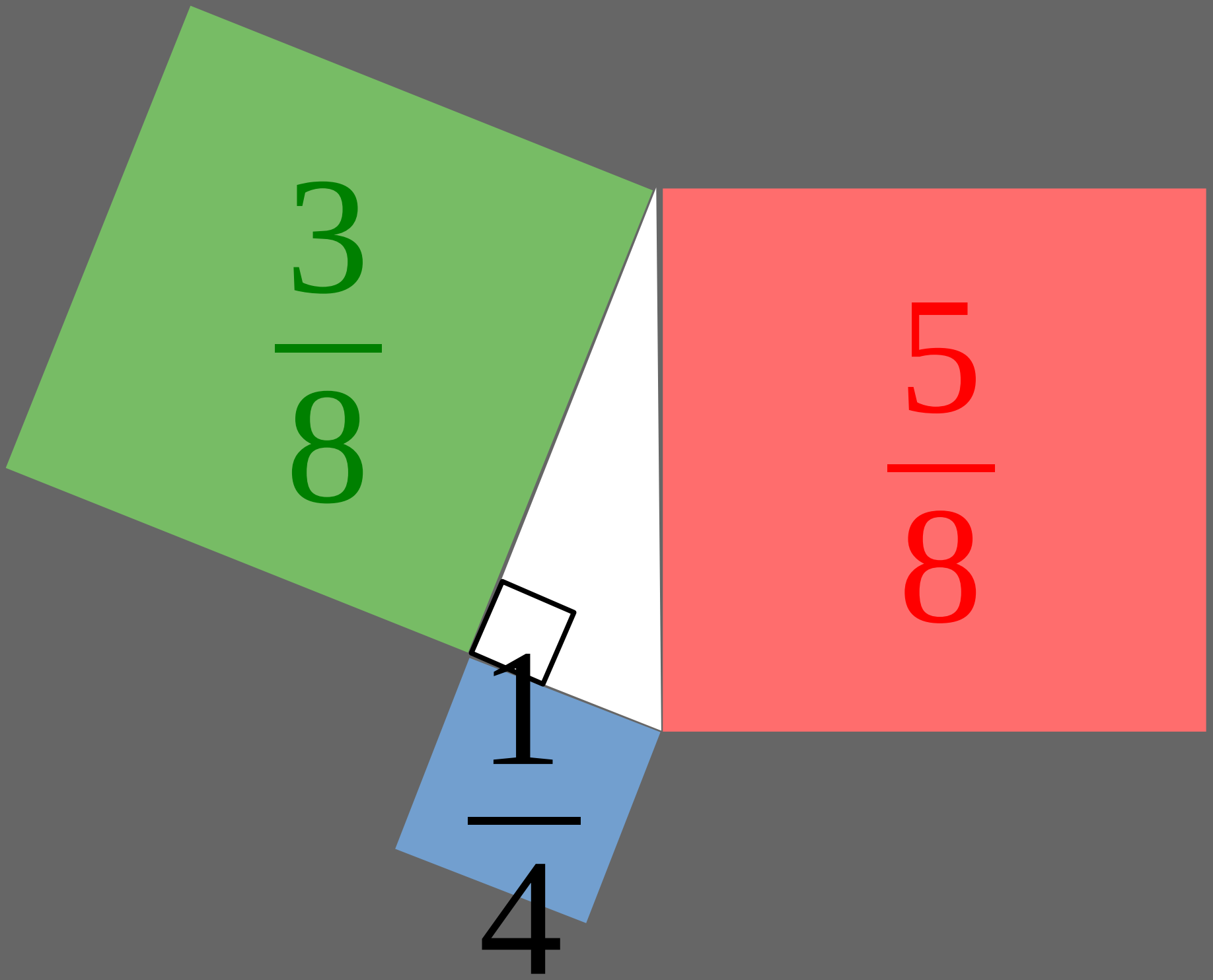

$\left(\frac{j}{k}\right)^2$
$\frac{j^2 m^2 + ?}{k^2 m^2}$
2
$\left(\frac{p}{m}\right)$

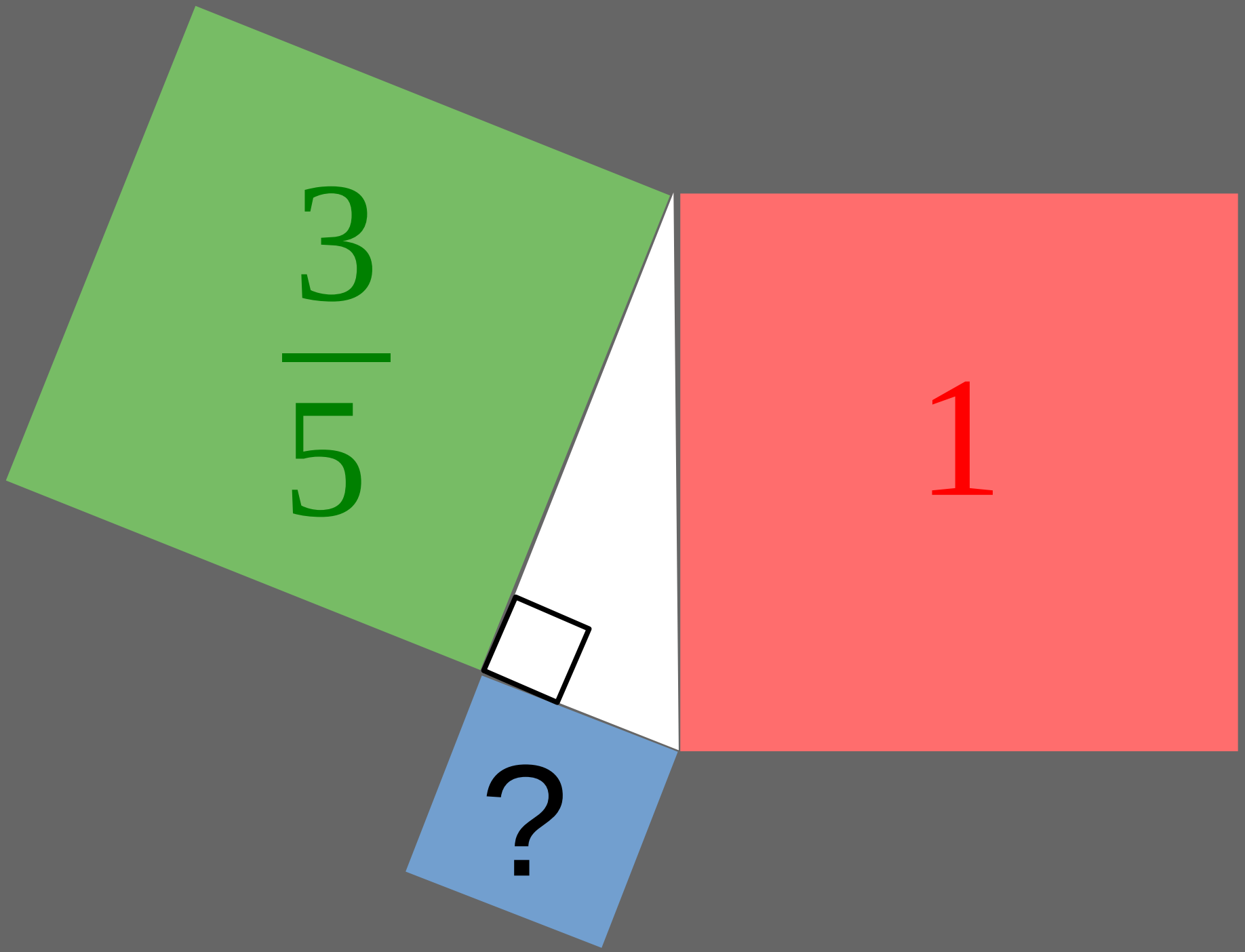

$\left(\frac{j}{k}\right)^2$
$\frac{j^2 m^2 + p^2 k^2}{k^2 m^2}$
2
$\left(\frac{p}{m}\right)$

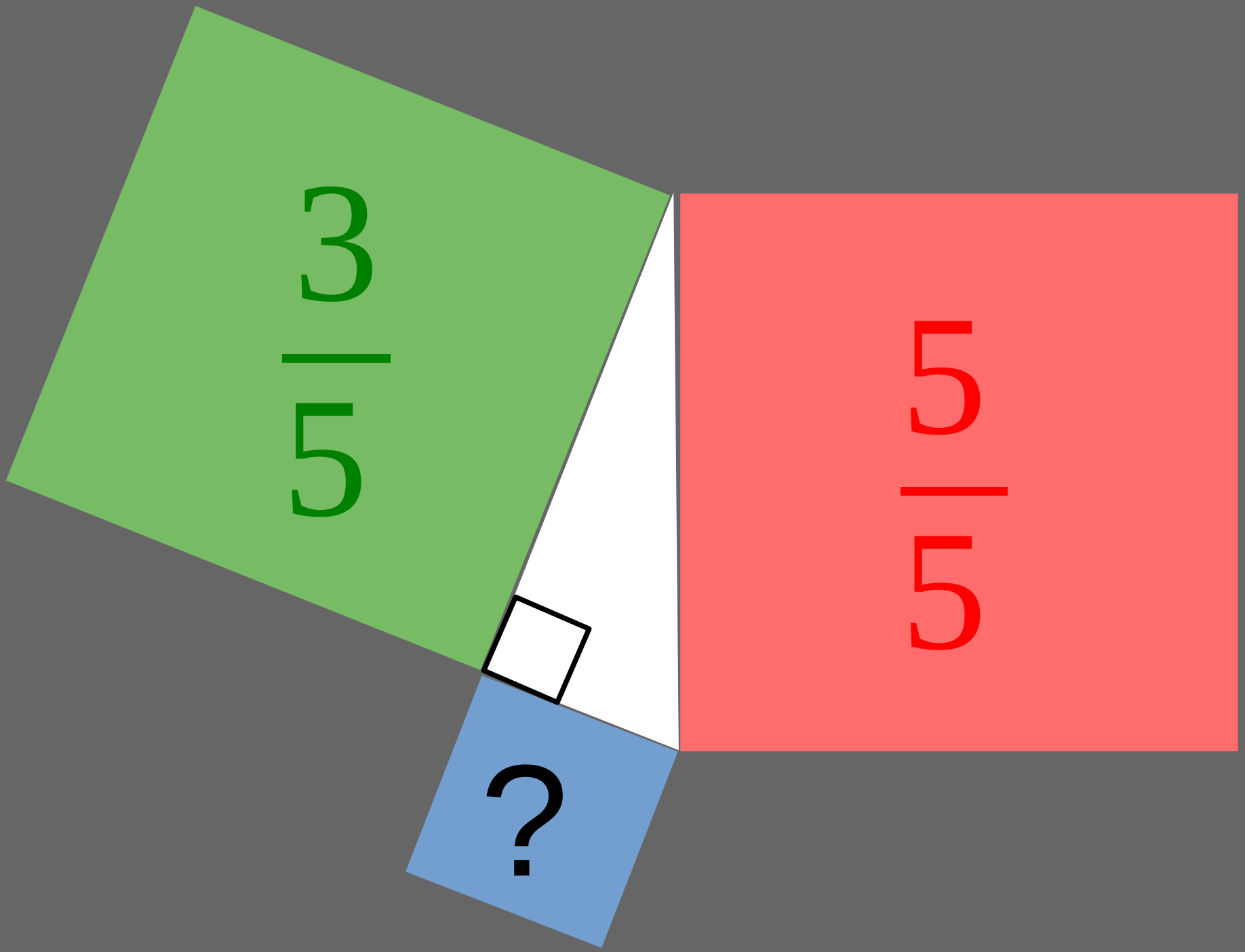
Calcule l’aire manquante

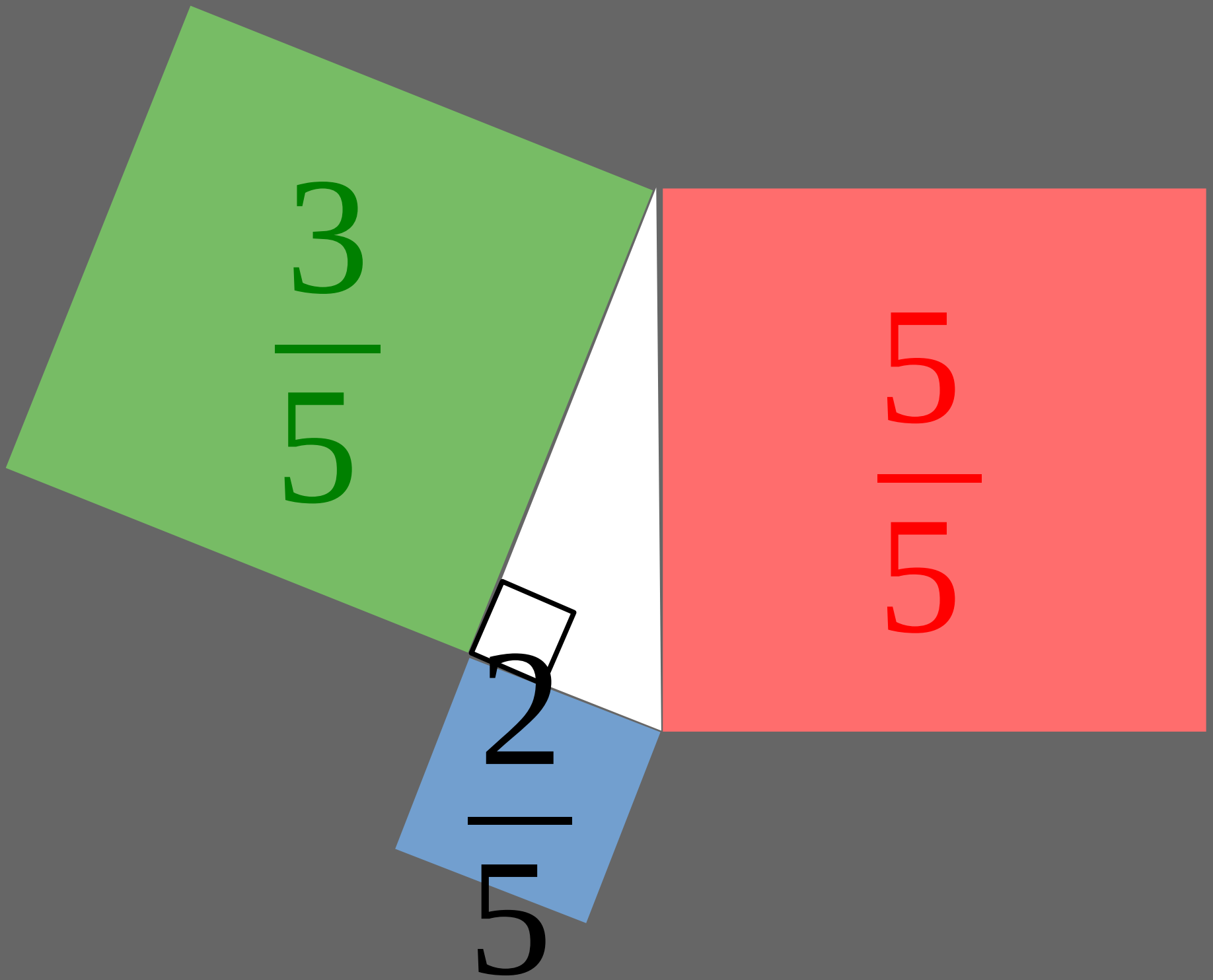

3
8
5
8
?

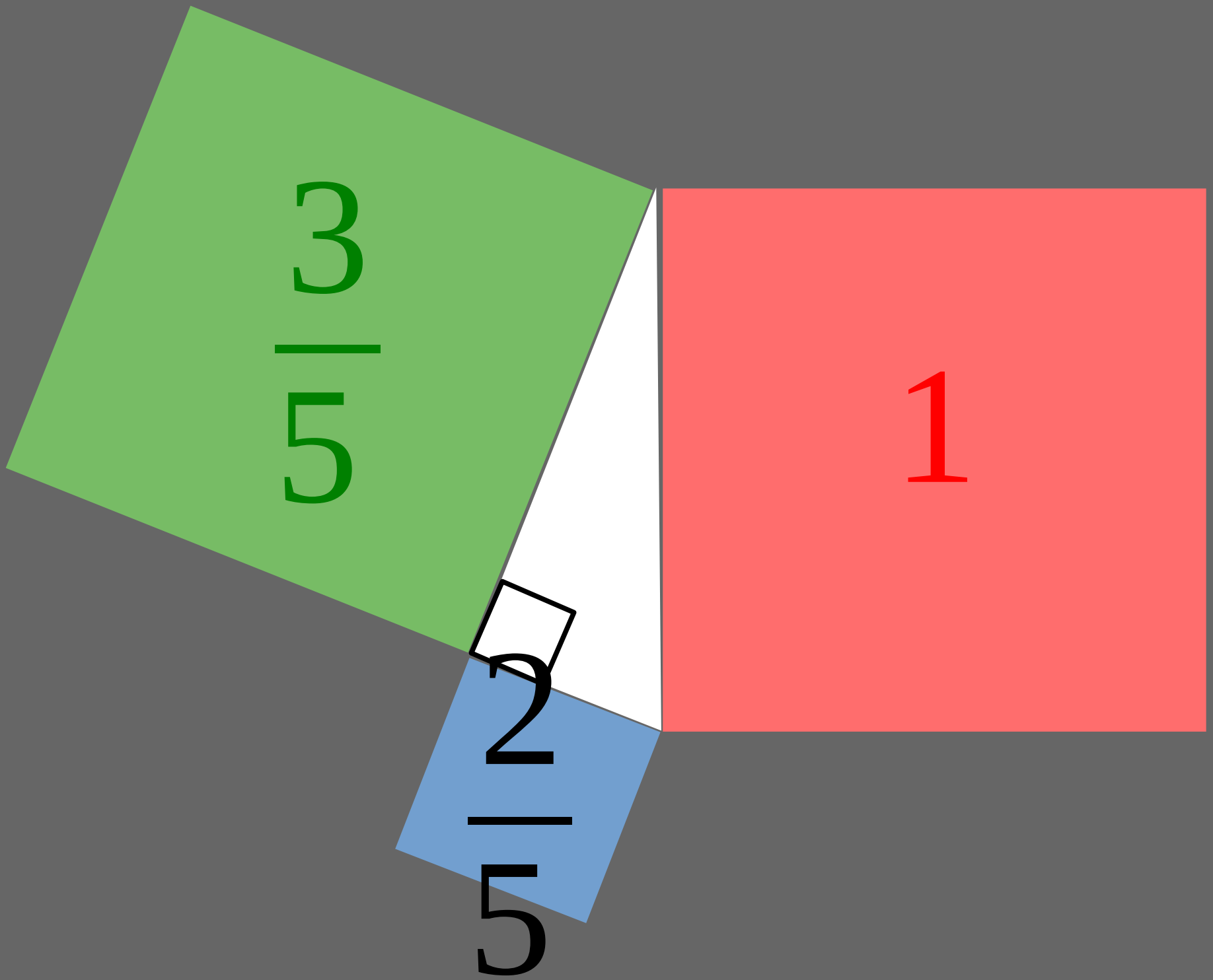
3/8
5/8
2/8

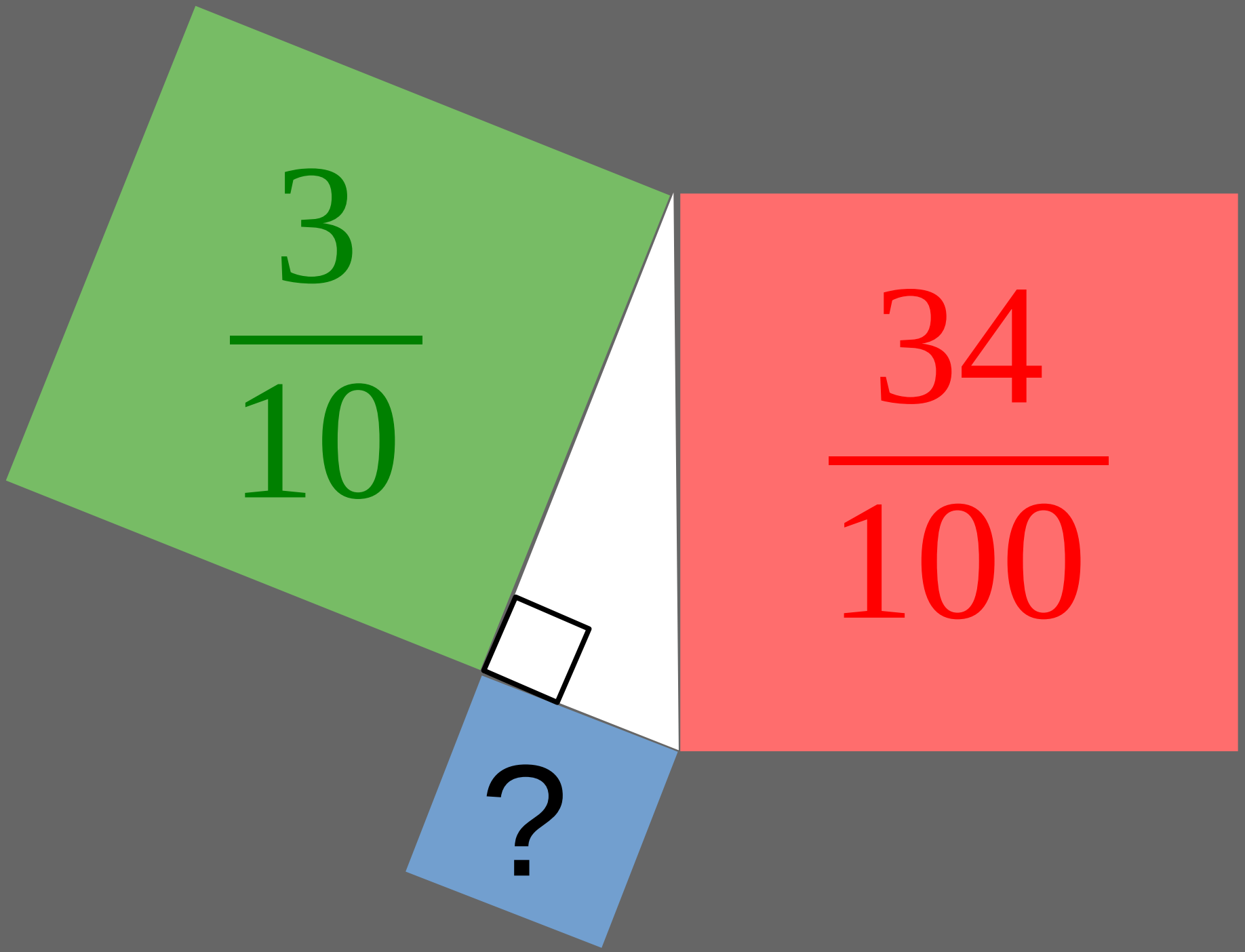

3/8
5/8
1/4

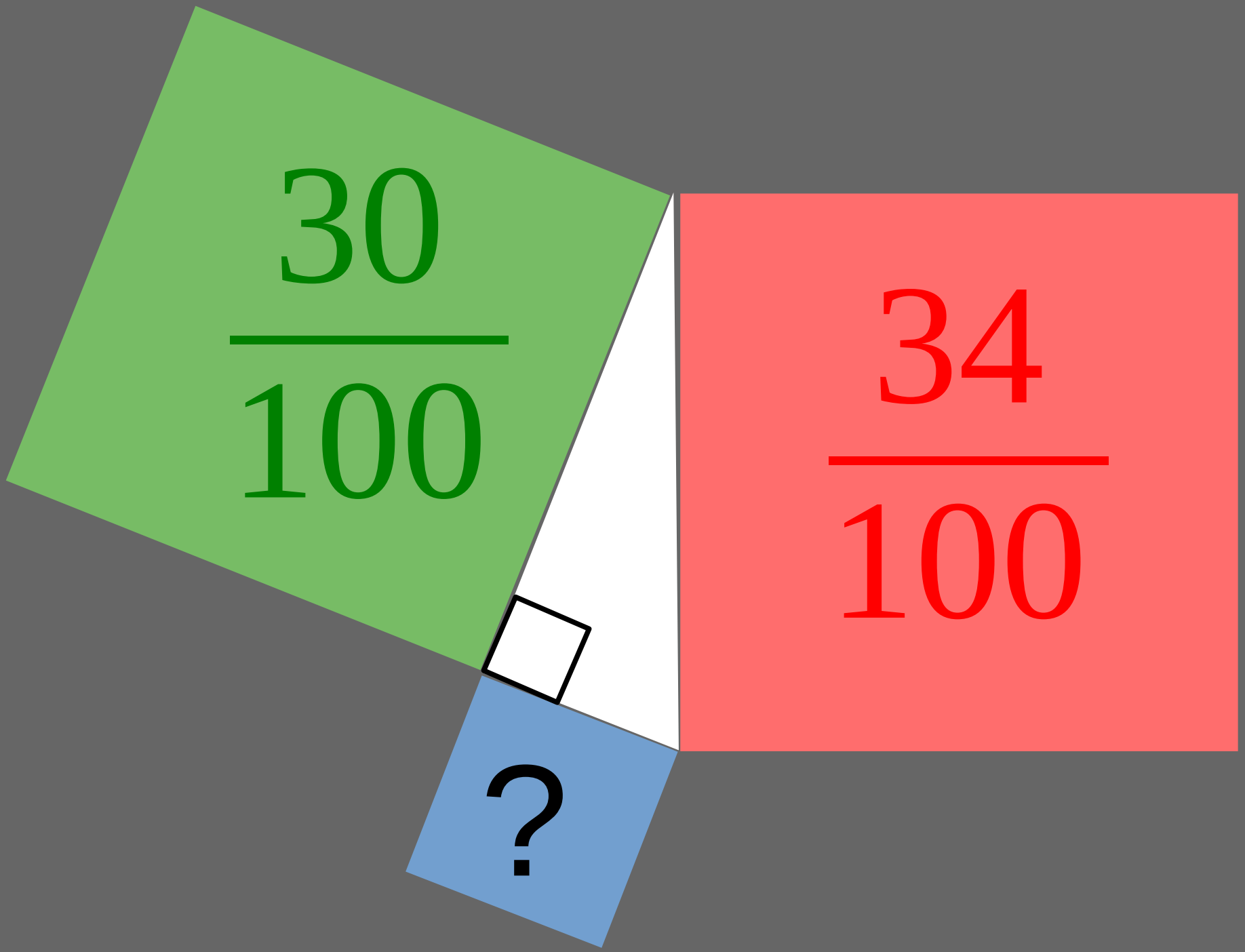

3
5
1
?

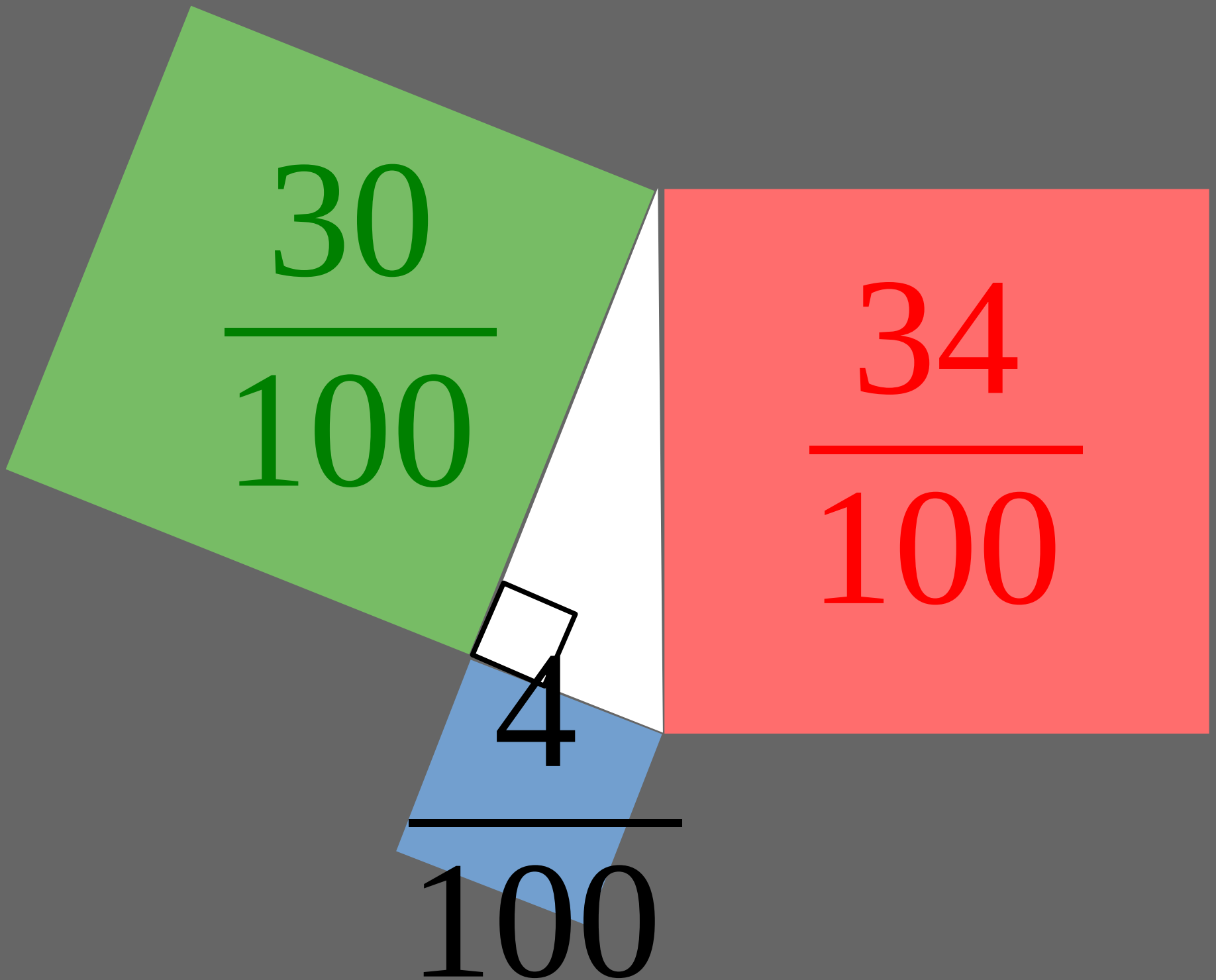

3
5
5
5
?

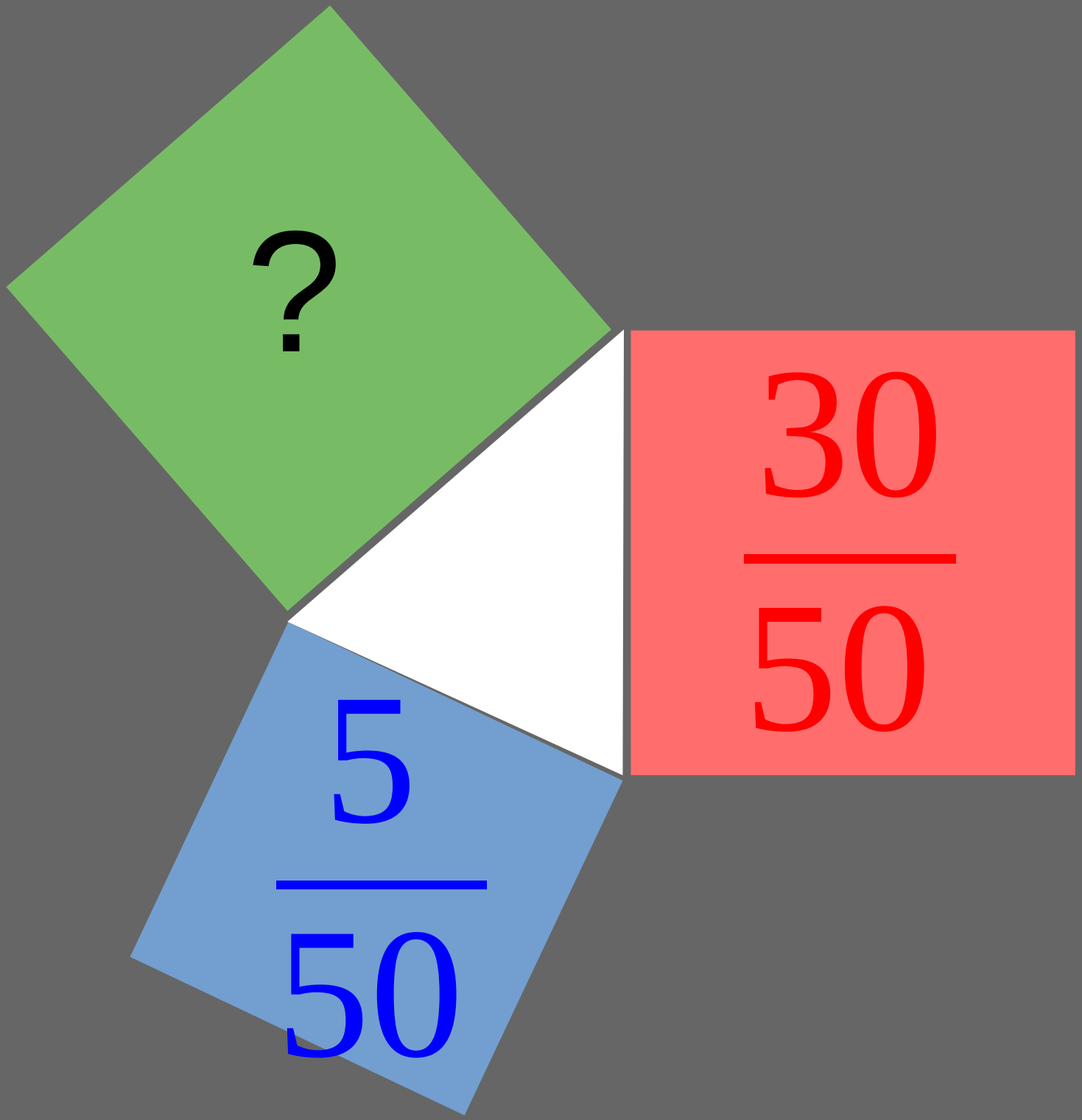

3
5
5
5
2
5

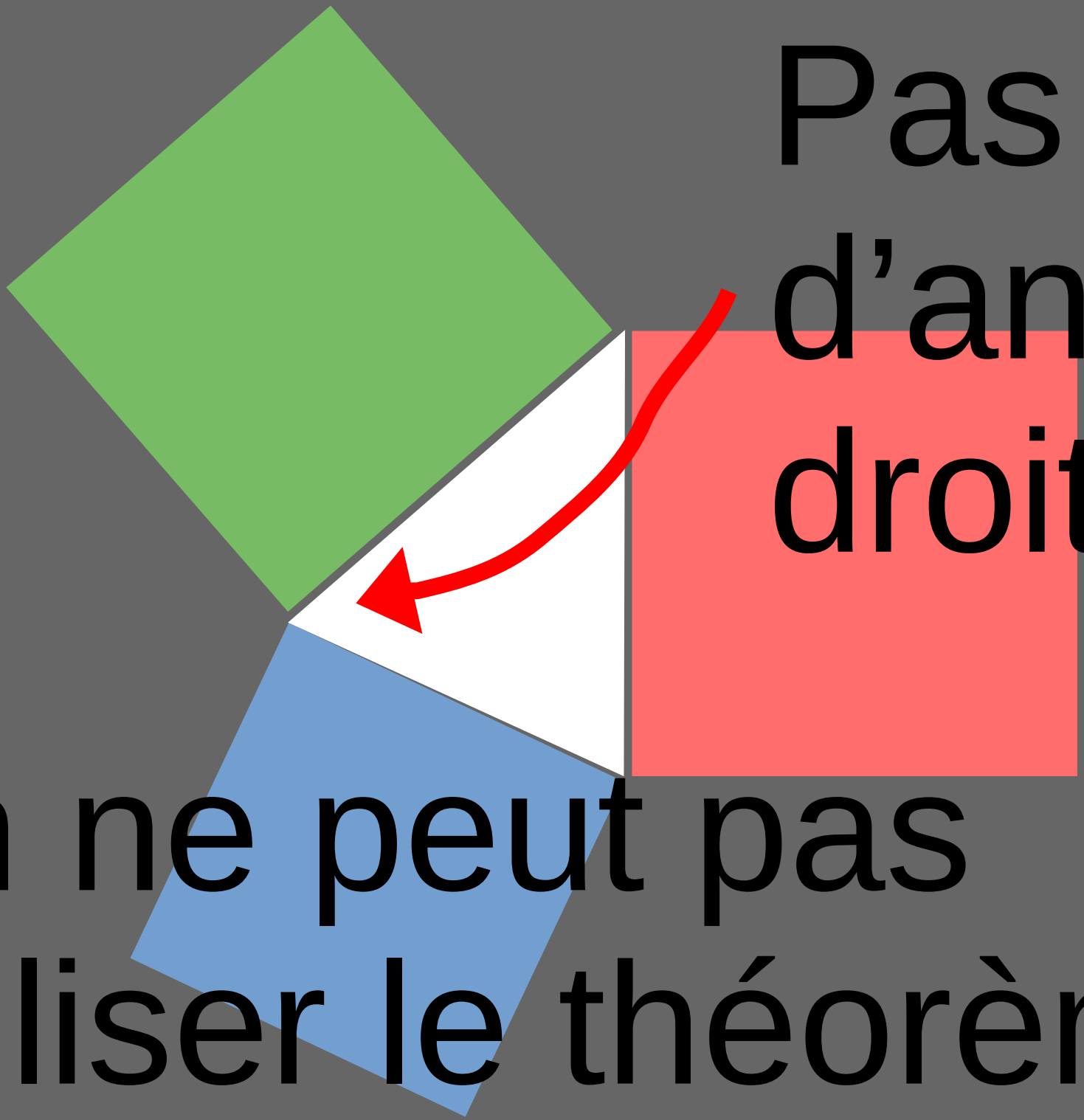

3
5
1
2
5


$\frac{3}{10}$
$\frac{34}{100}$
?


30/100
34/100
?

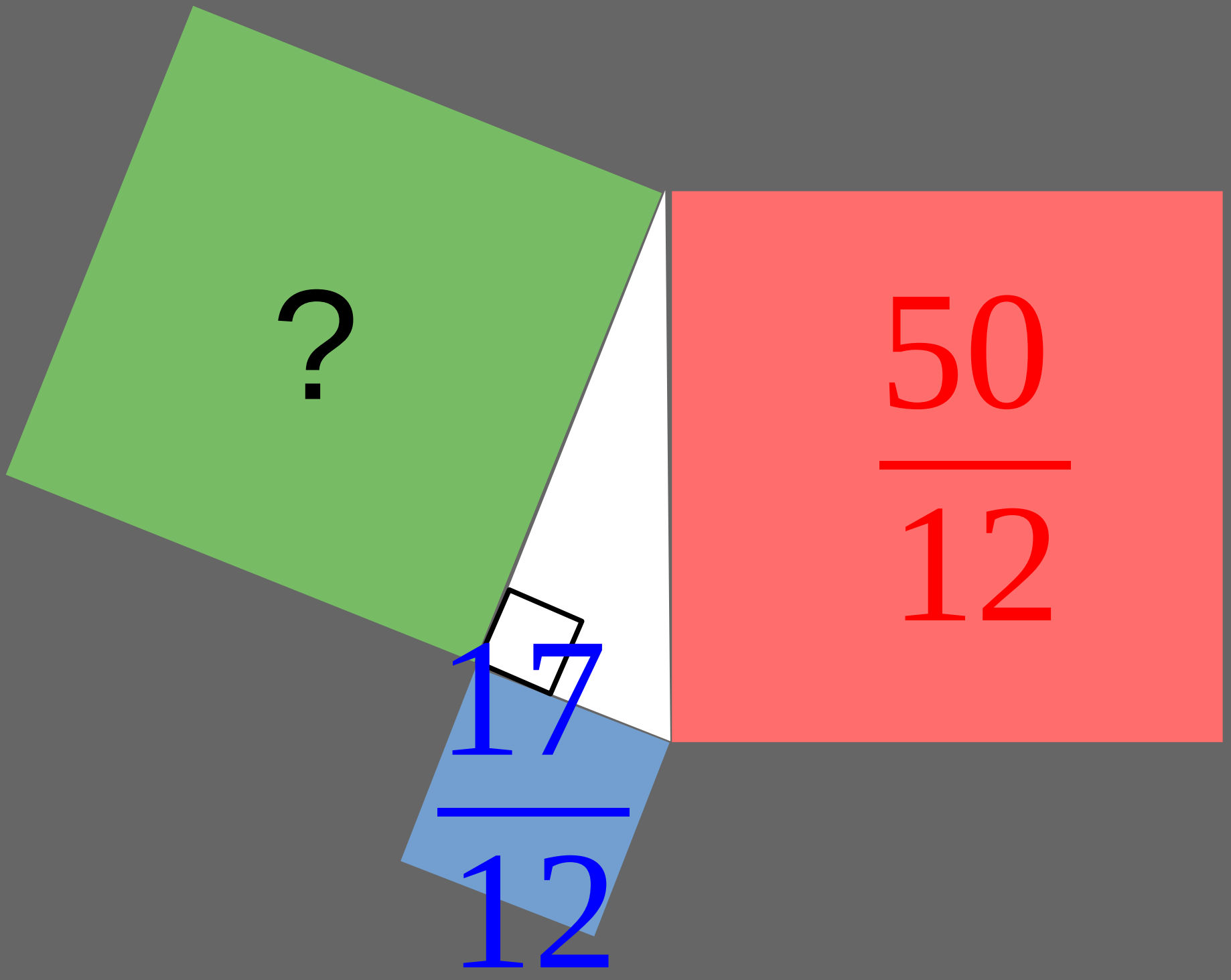

30
100
34
100
4
100

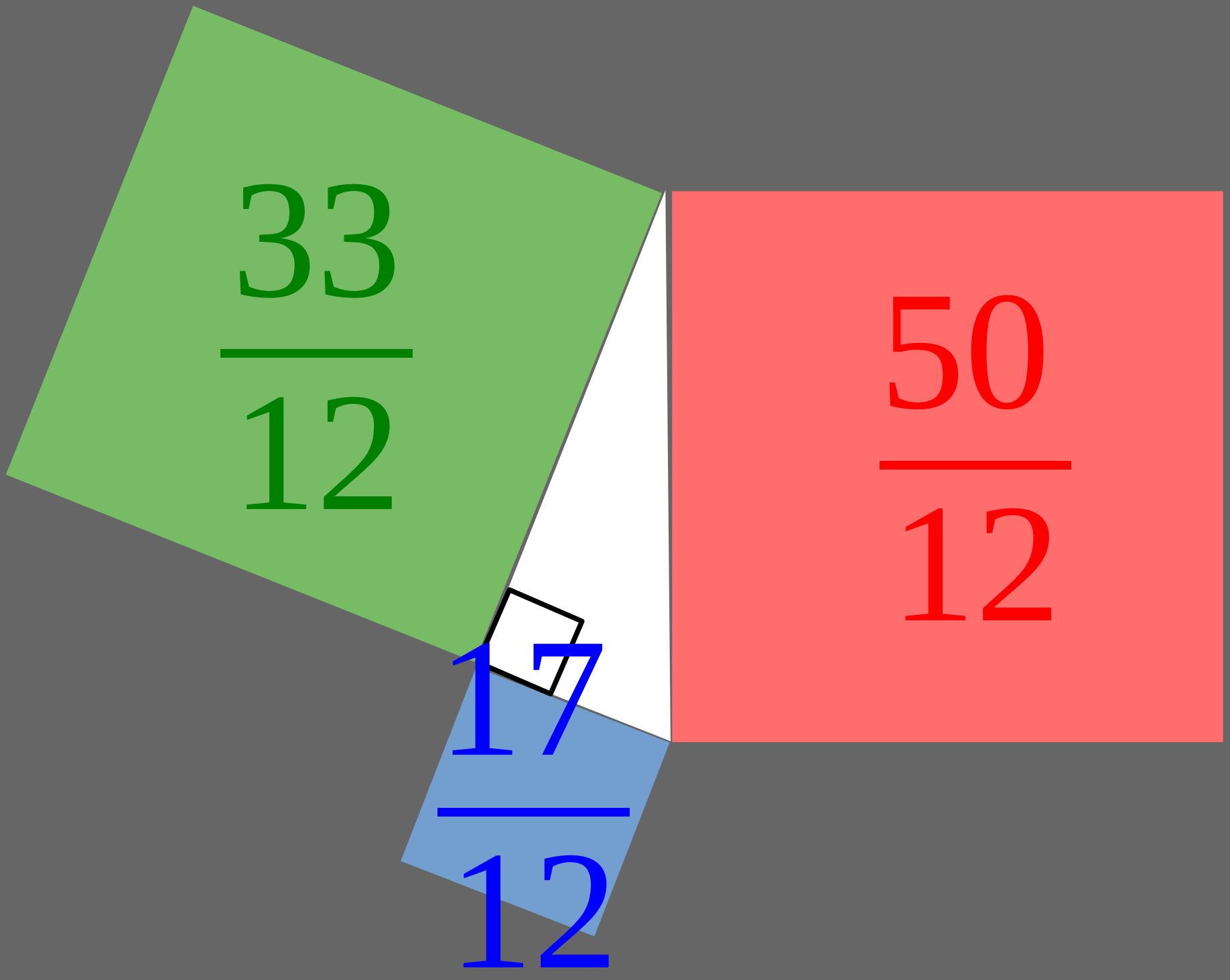

?
30/50
5/50

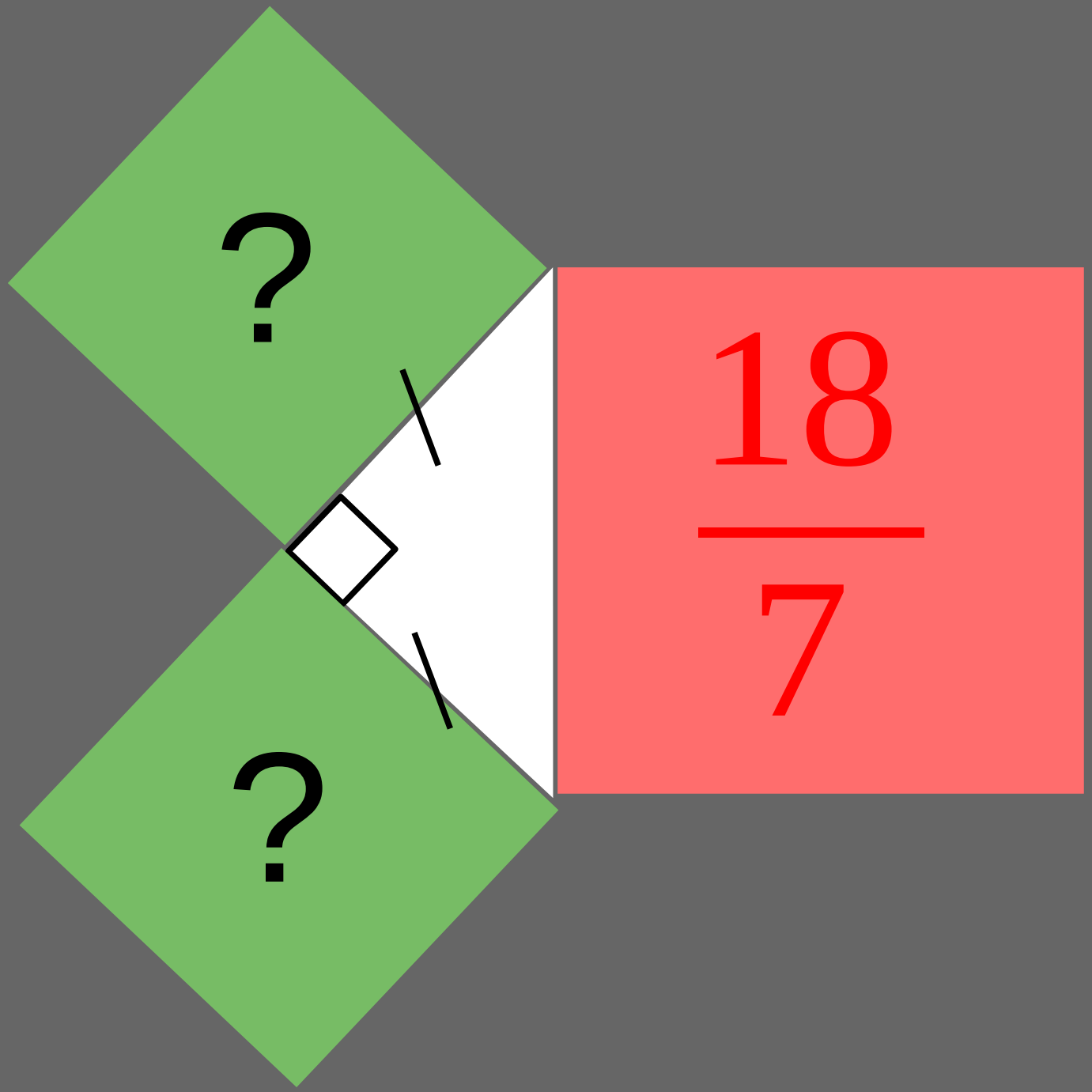


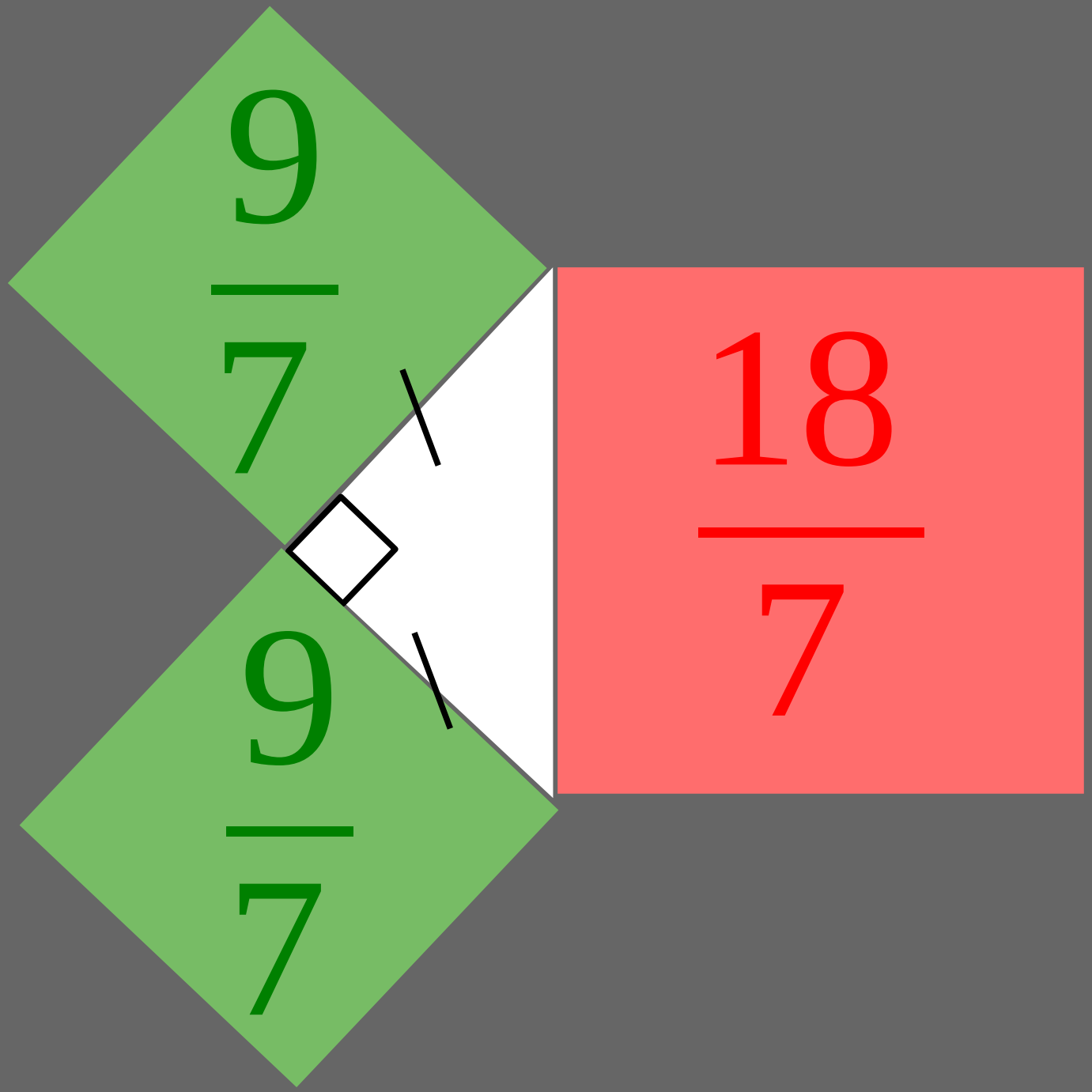
Pas d’angle droit :

on ne peut pas utiliser le théorème

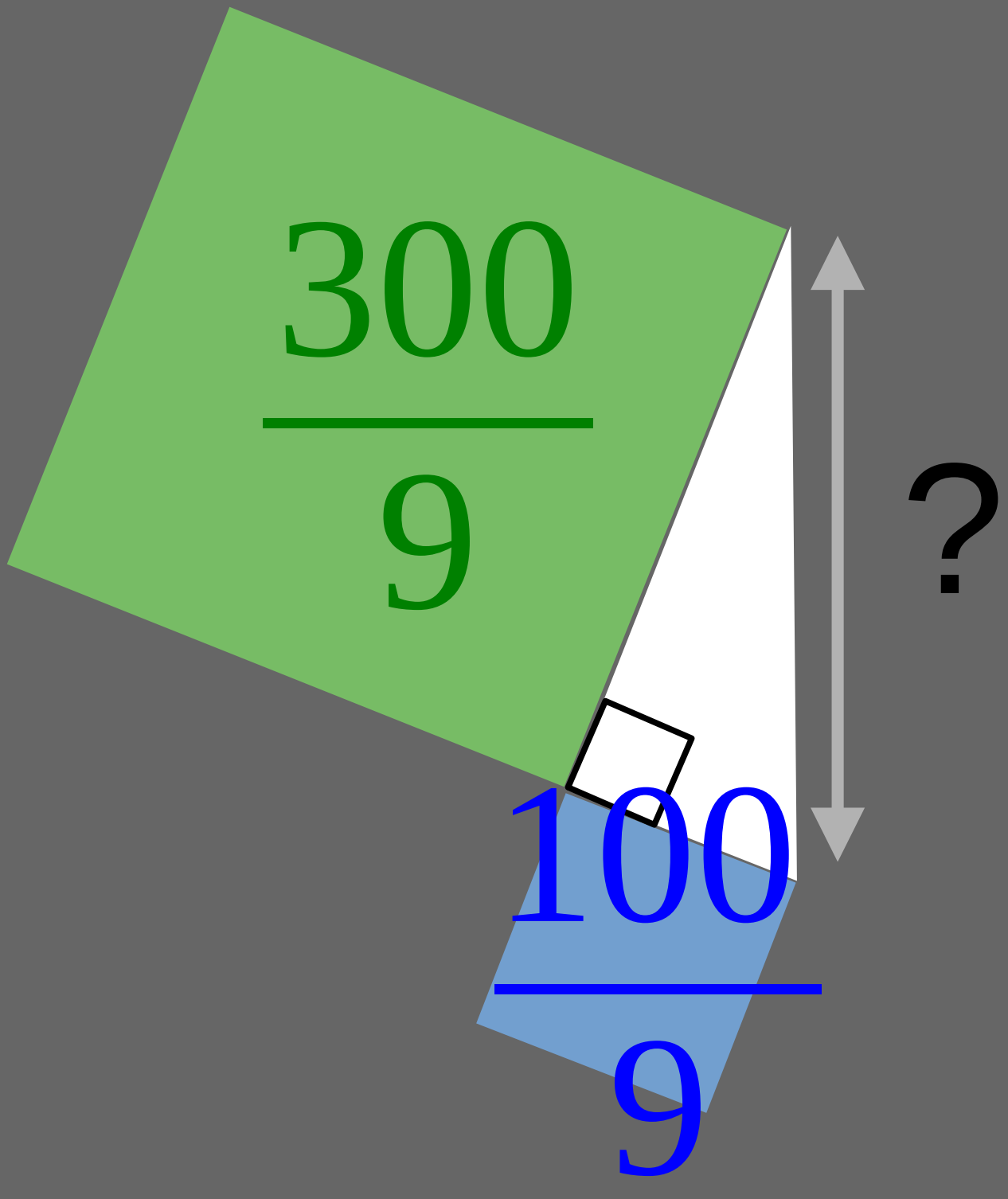

?
50/12
17/12

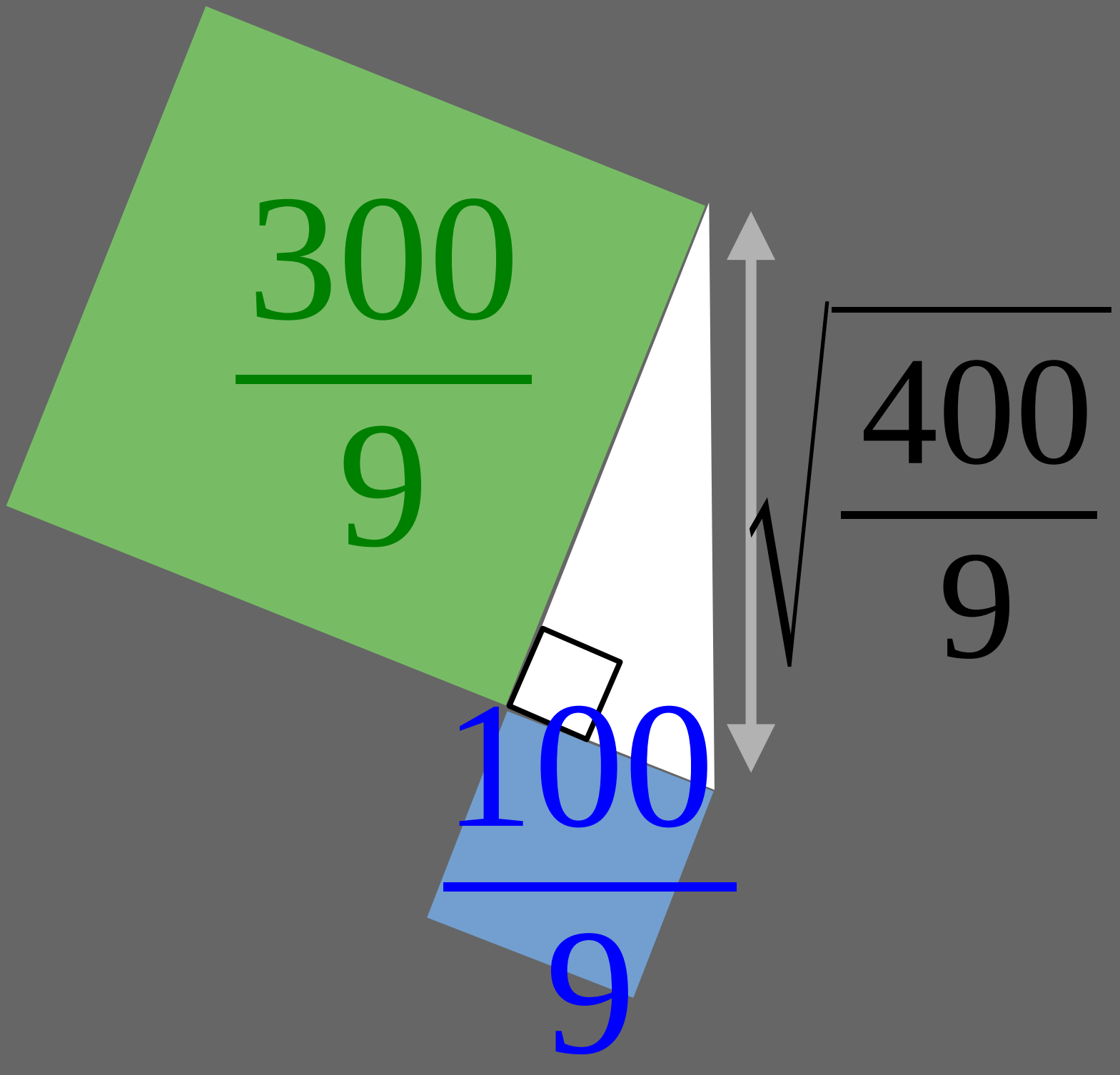

33/12
50/12
17/12


?
?
18
7


9/7
18/7
9/7

Calcule
la longueur
de l’hypoténuse


$\frac{300}{9}$
?
$\frac{100}{9}$

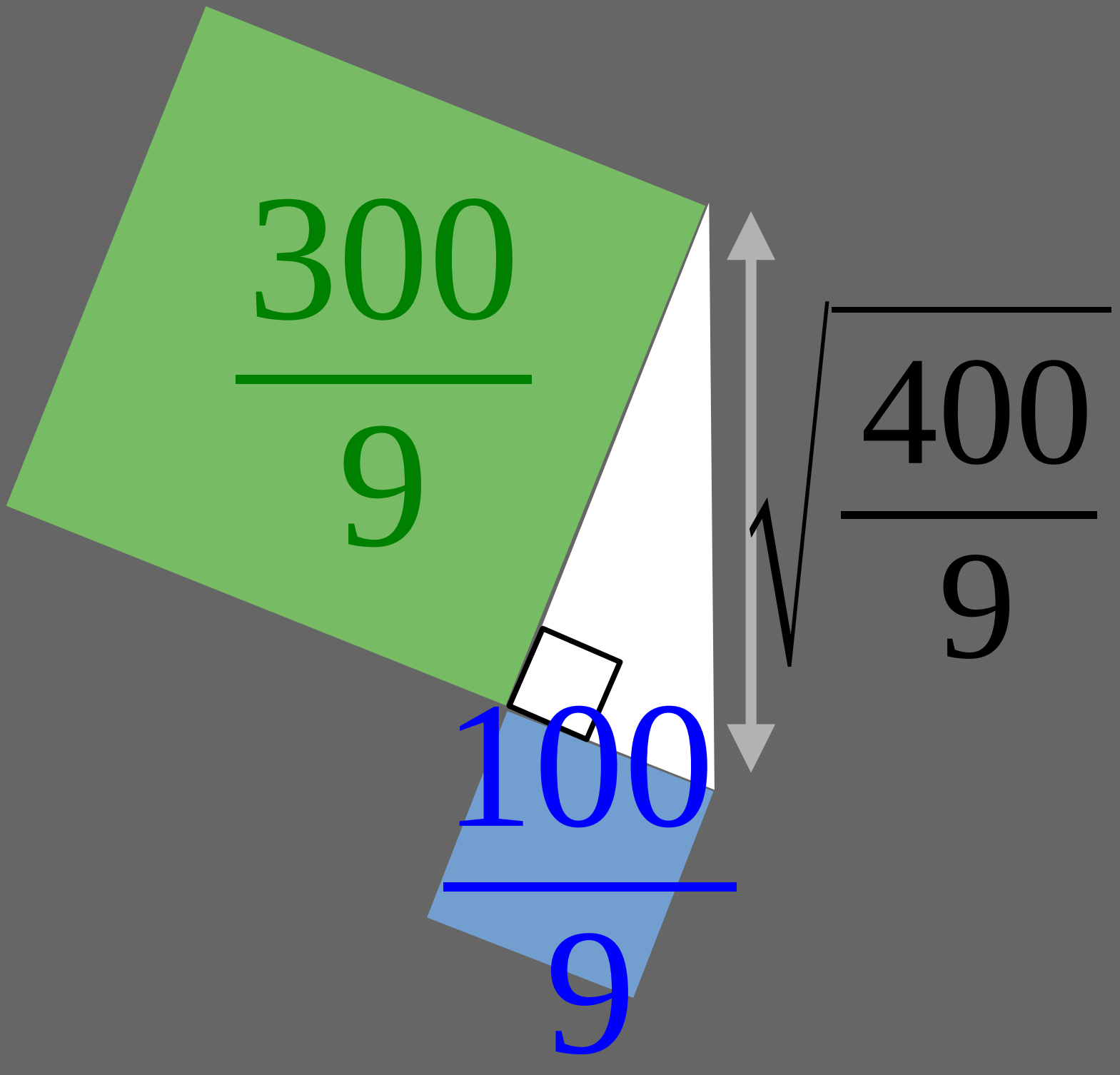

$\frac{300}{9}$
$\sqrt{\frac{400}{9}}$
$\frac{100}{9}$

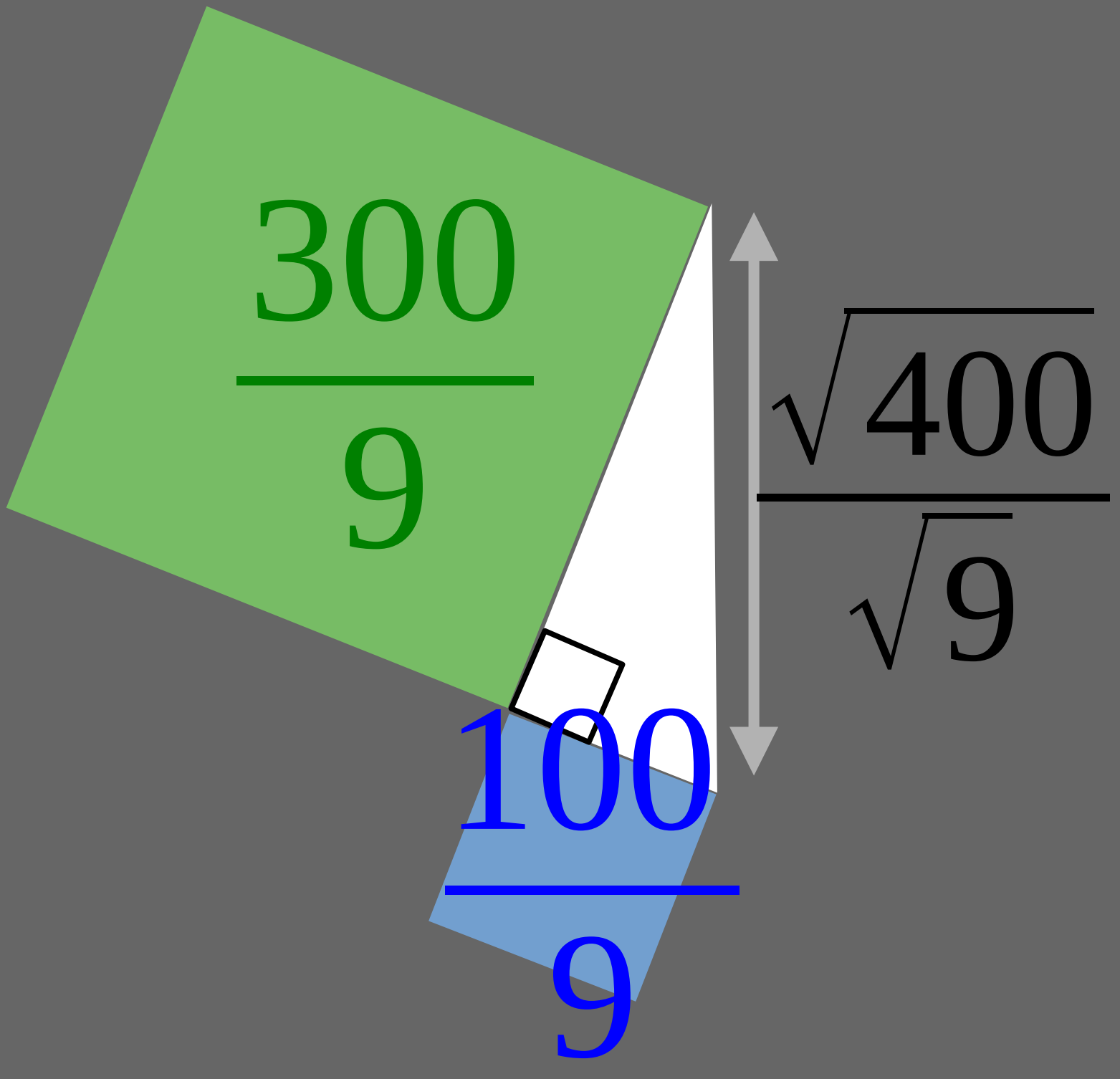
Fraction au carré:

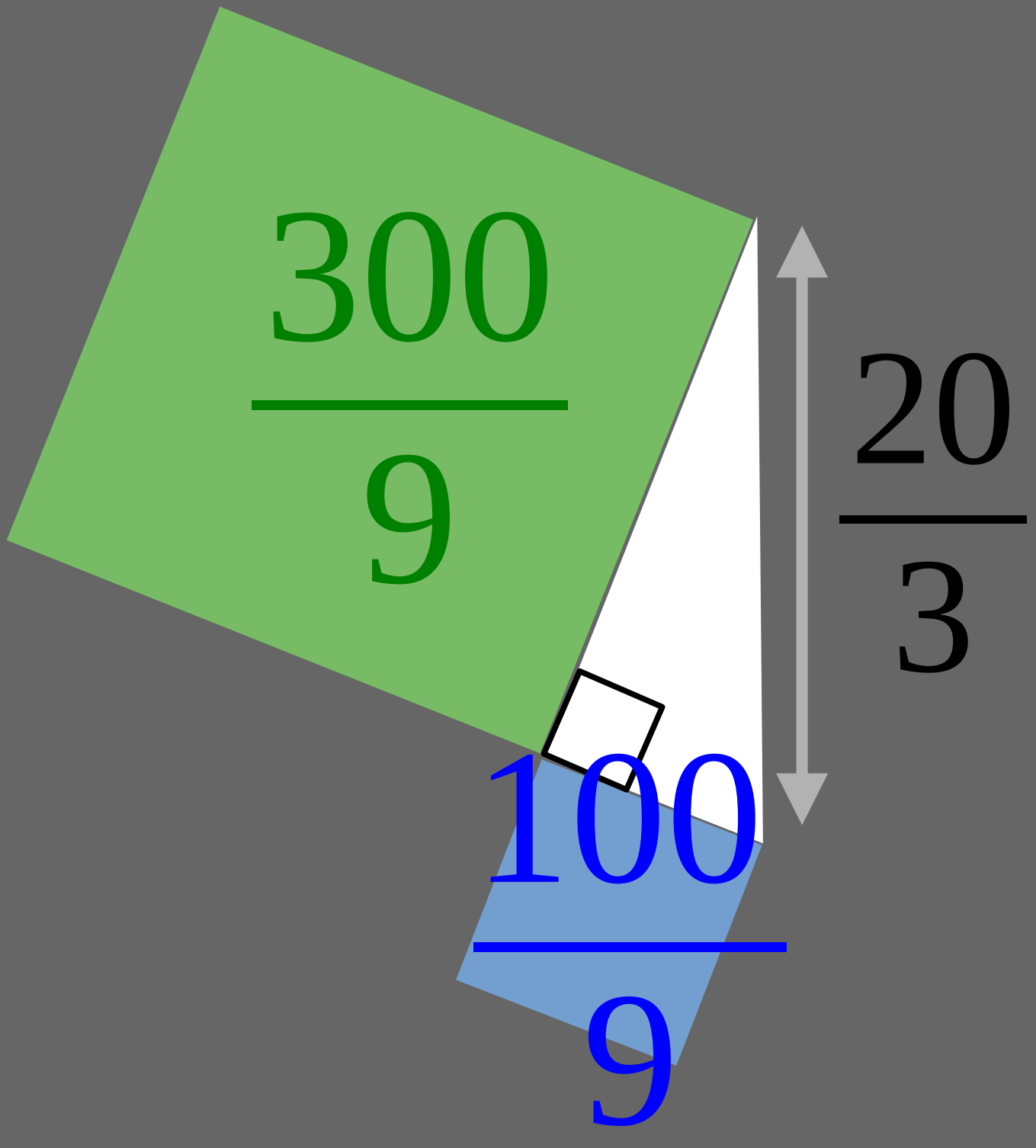
$$\left(\frac{e}{f}\right)^2 = \frac{e^2}{f^2}$$

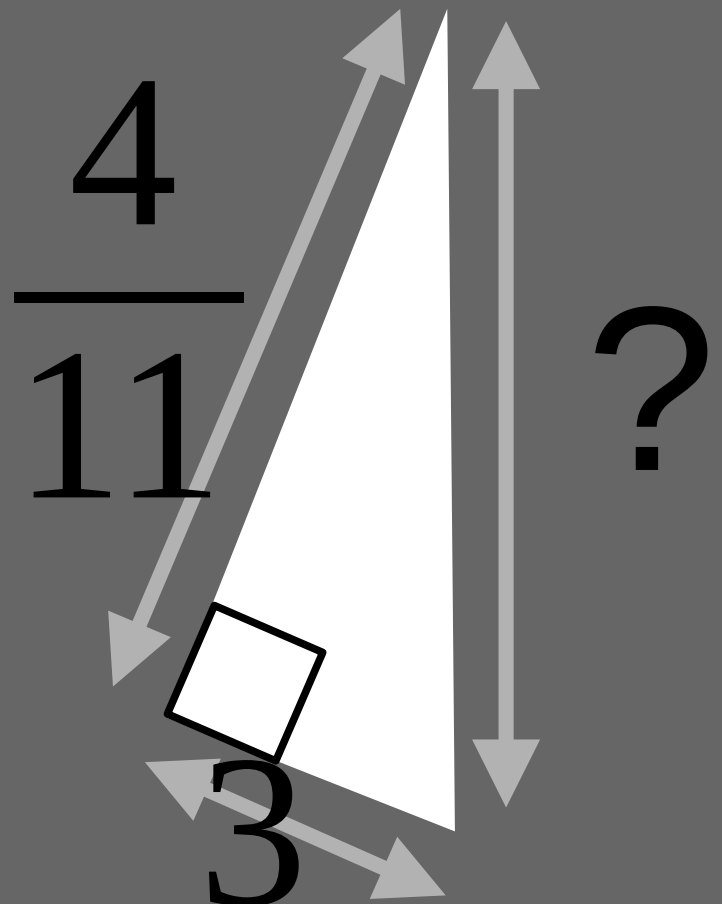
Racine carrée de fraction :

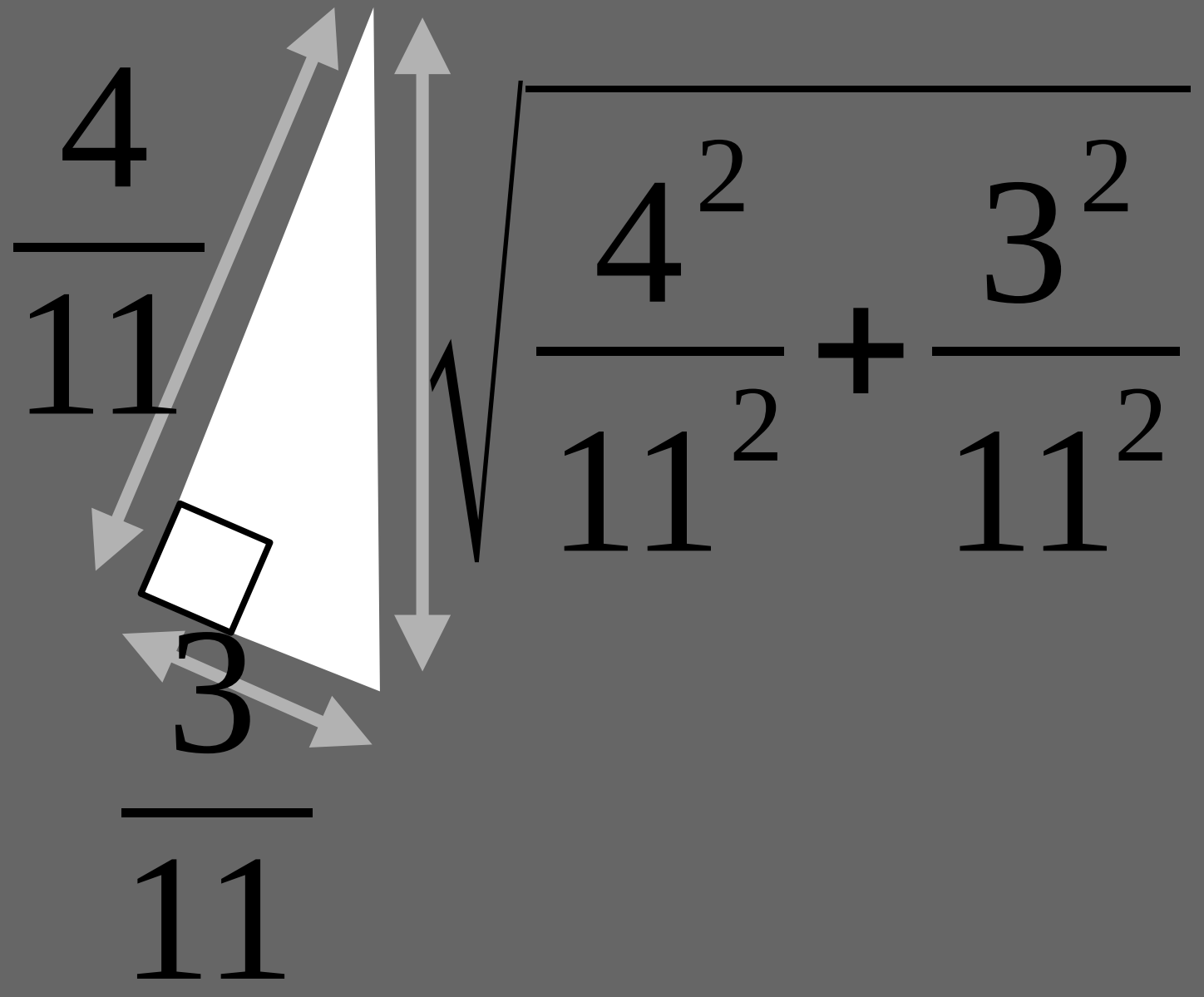
$$\sqrt{\frac{e}{f}} = \frac{\sqrt{e}}{\sqrt{f}}$$

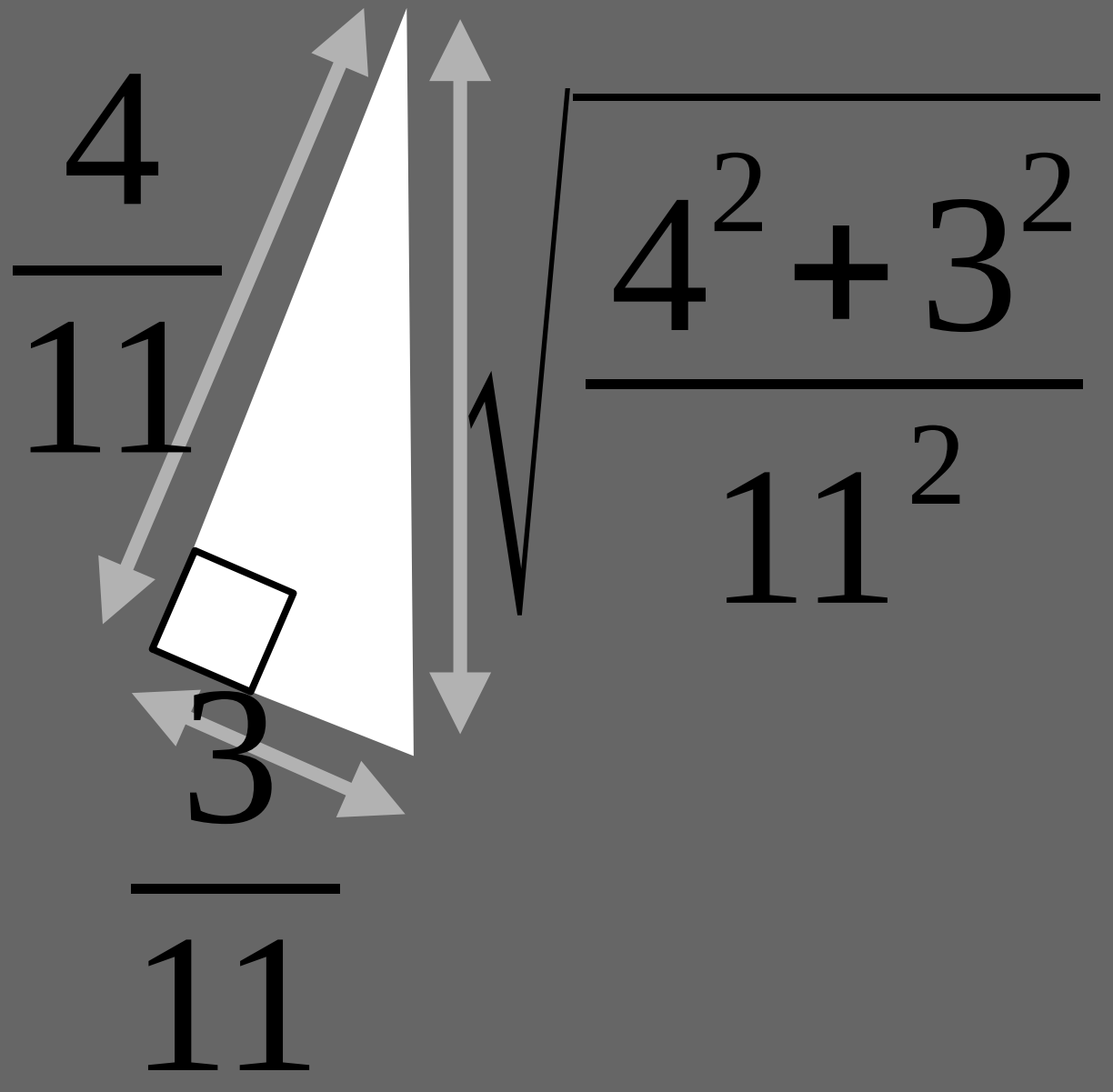

$\frac{300}{9}$
$\sqrt{\frac{400}{9}}$
$\frac{100}{9}$

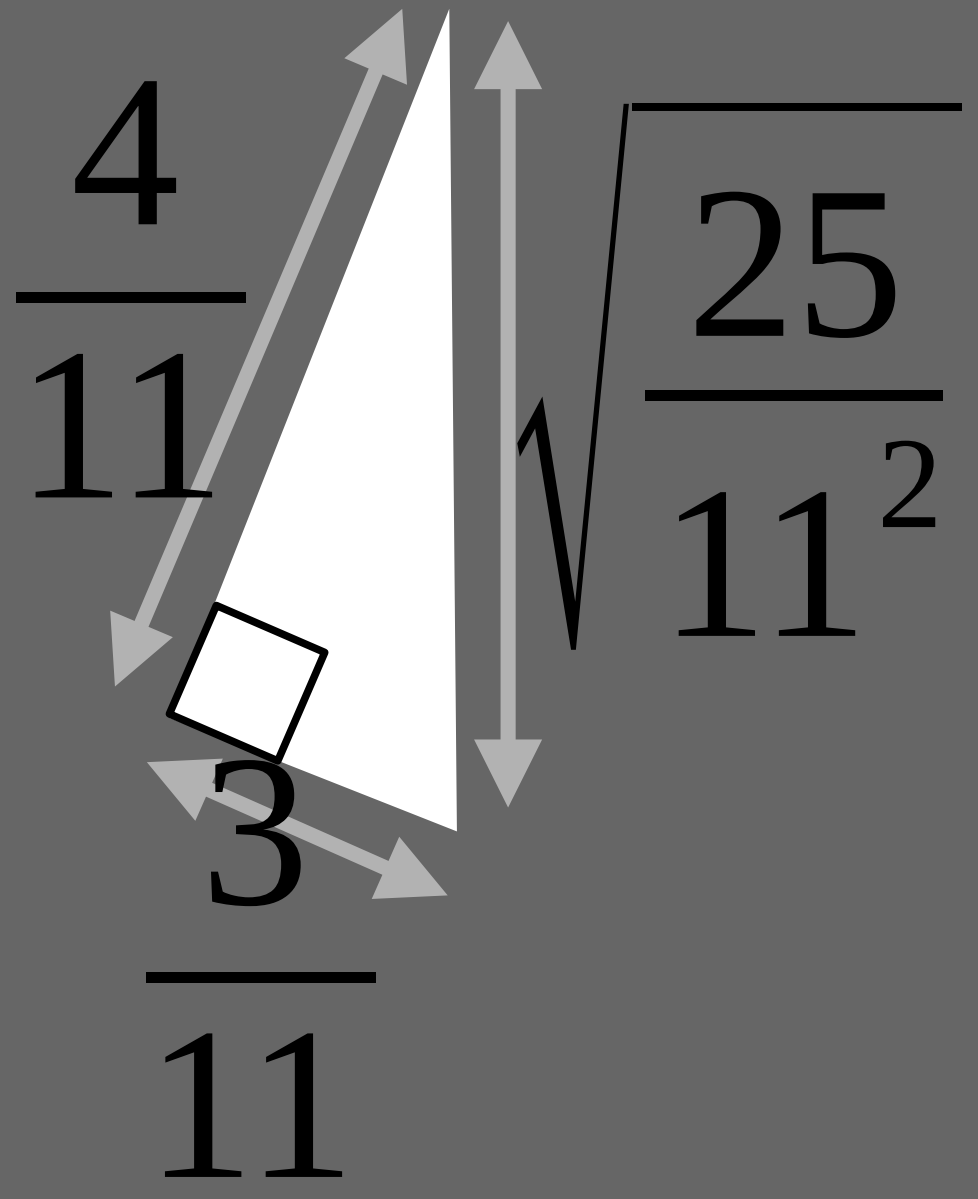

$\frac{300}{9}$
$\frac{\sqrt{400}}{\sqrt{9}}$
$\frac{100}{9}$

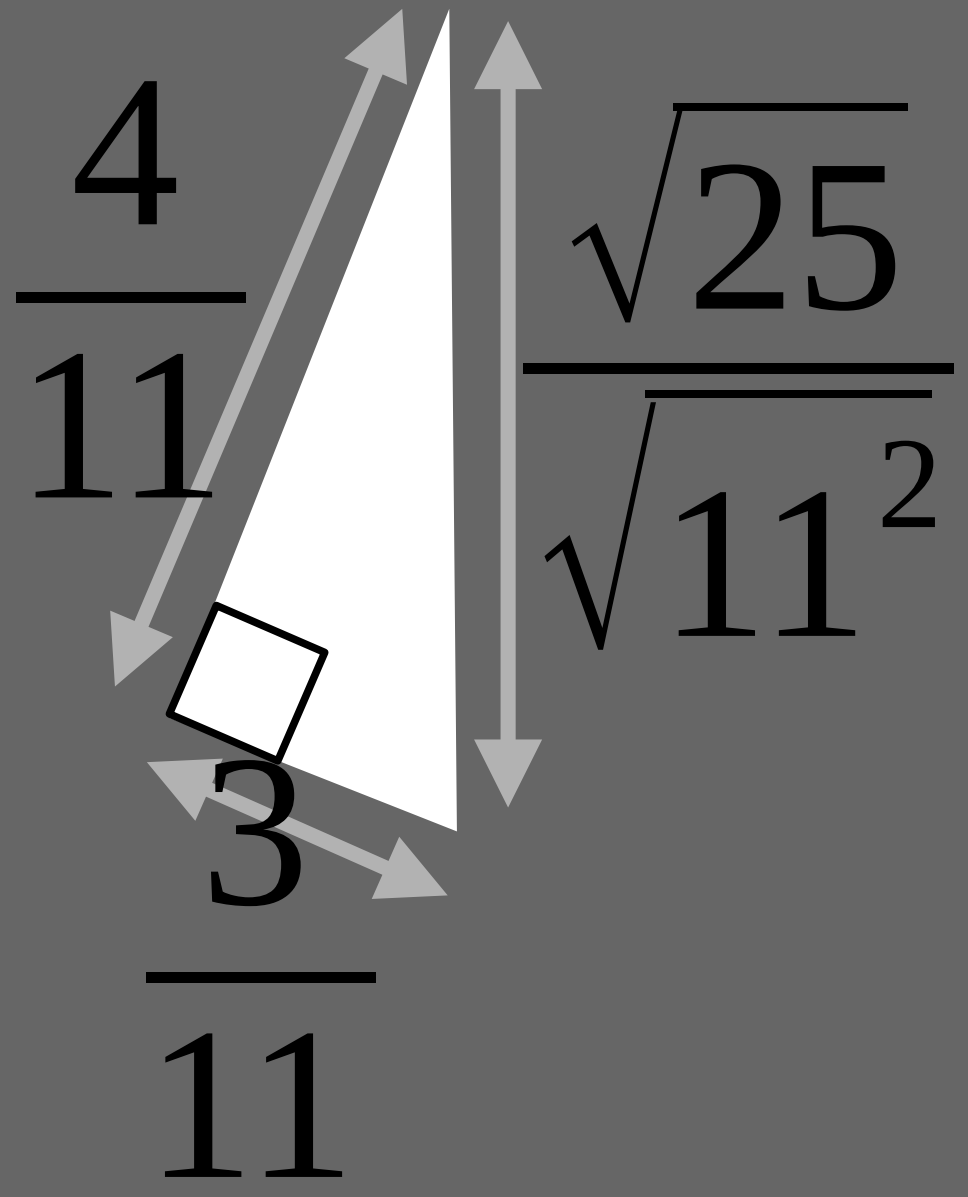

300
9
20
3
100
9

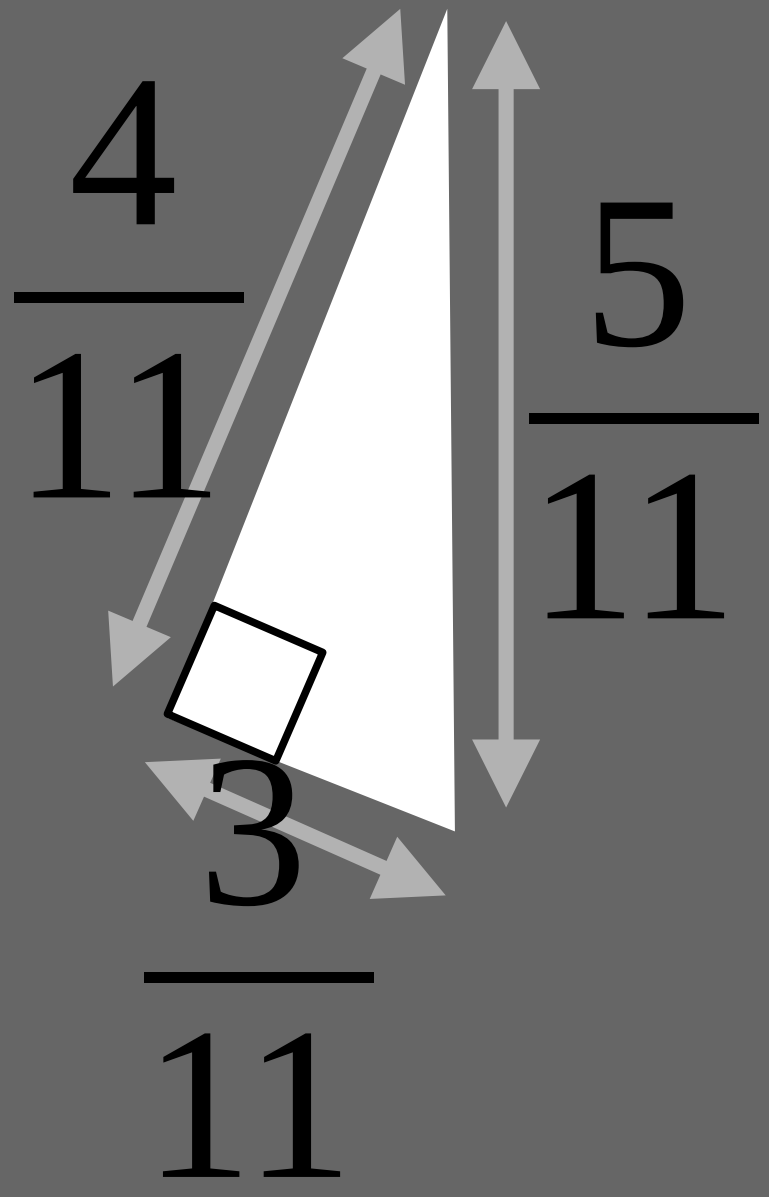

4/11
?
3/11

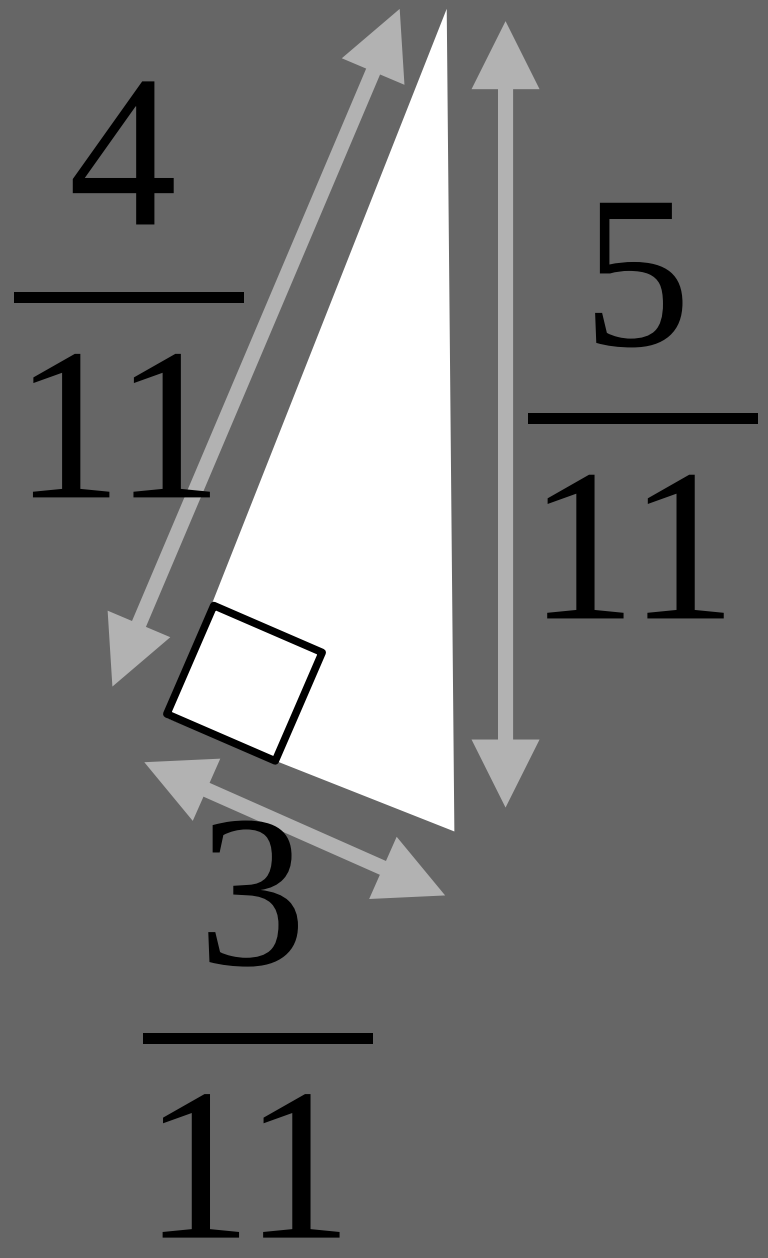

4/11
3/11
√(4²/11² + 3²/11²)

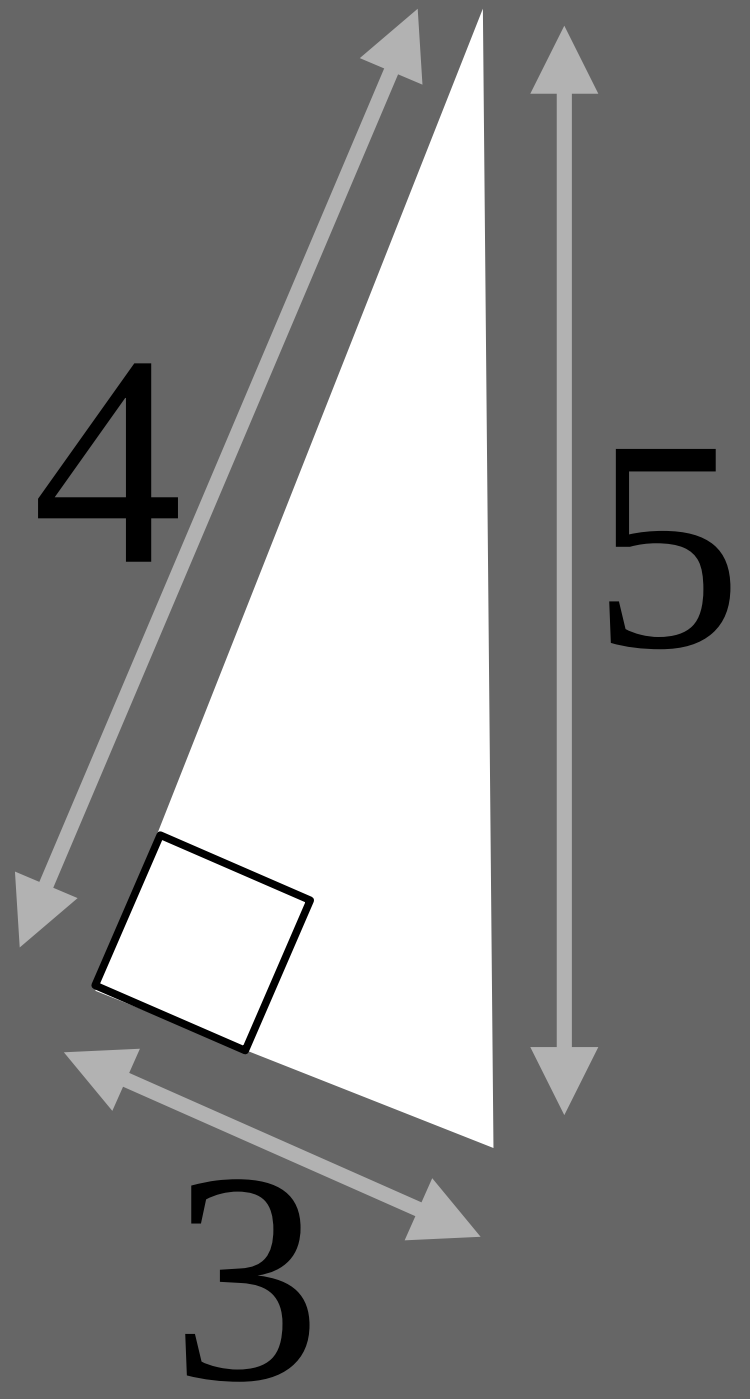

4/11
√(4²+3²)/11²
3/11

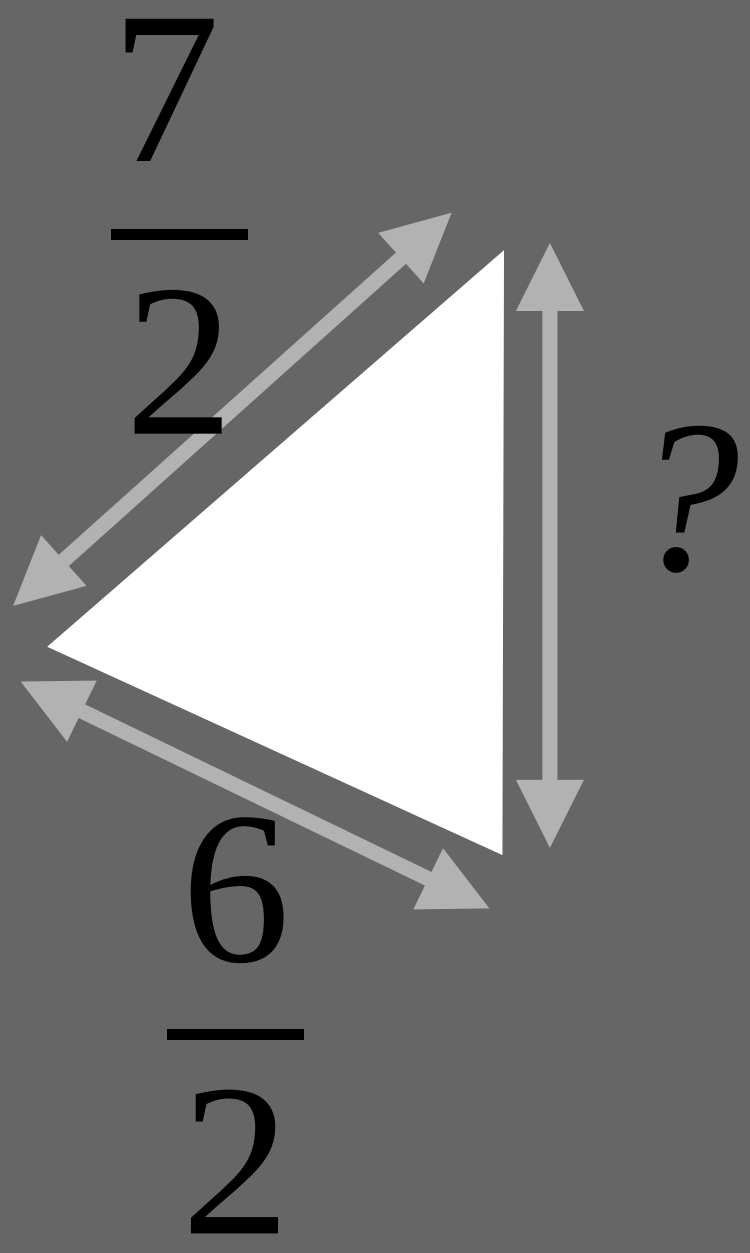

$\frac{4}{11}$
$\sqrt{\frac{25}{11^2}}$
$\frac{3}{11}$


$\frac{4}{11}$
$\frac{\sqrt{25}}{\sqrt{11^2}}$
$\frac{3}{11}$

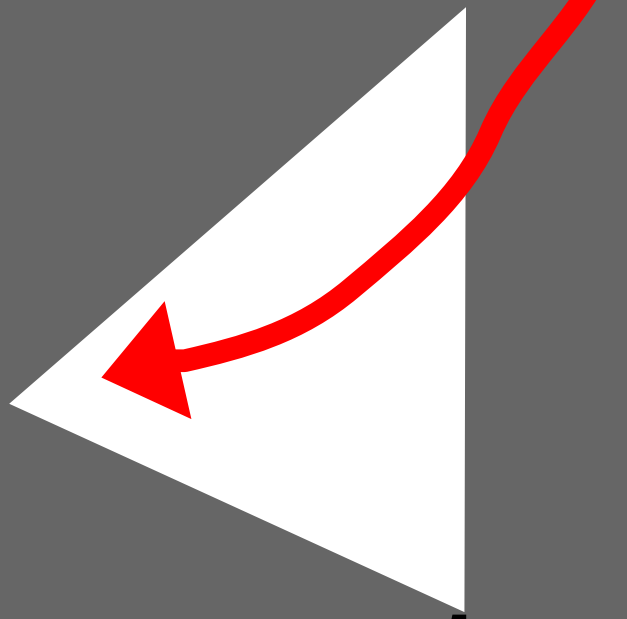

4/11
5/11
3/11


4/11
5/11
3/11


4
5
3

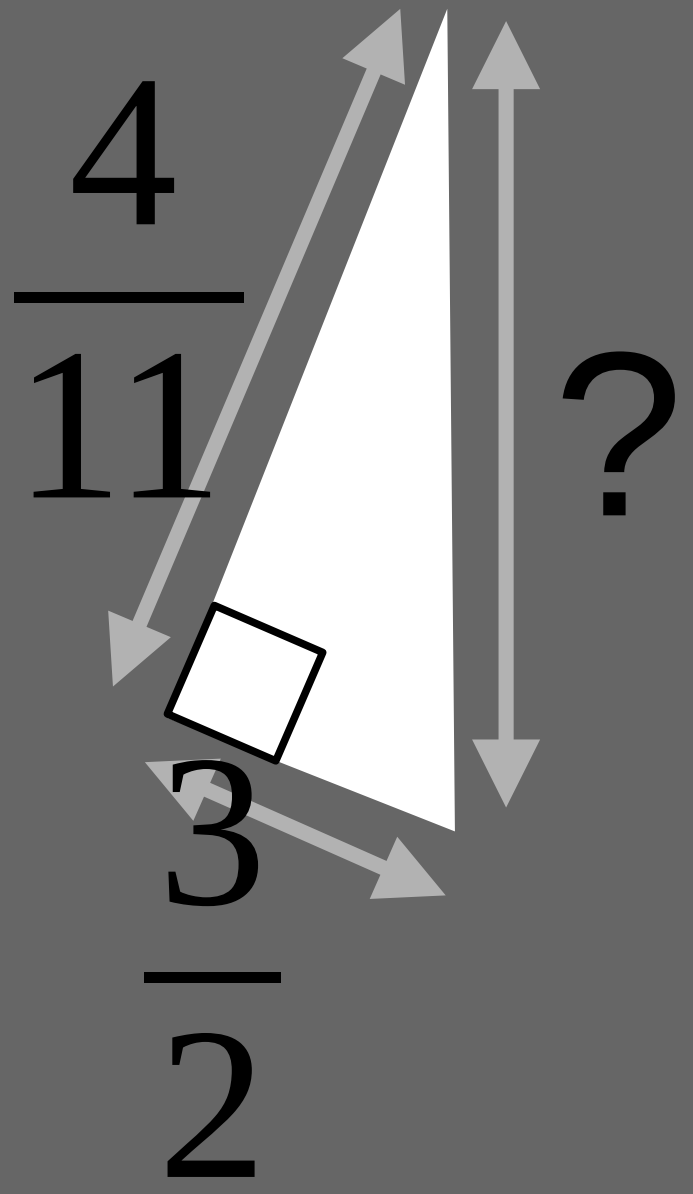

7/2
?
6/2

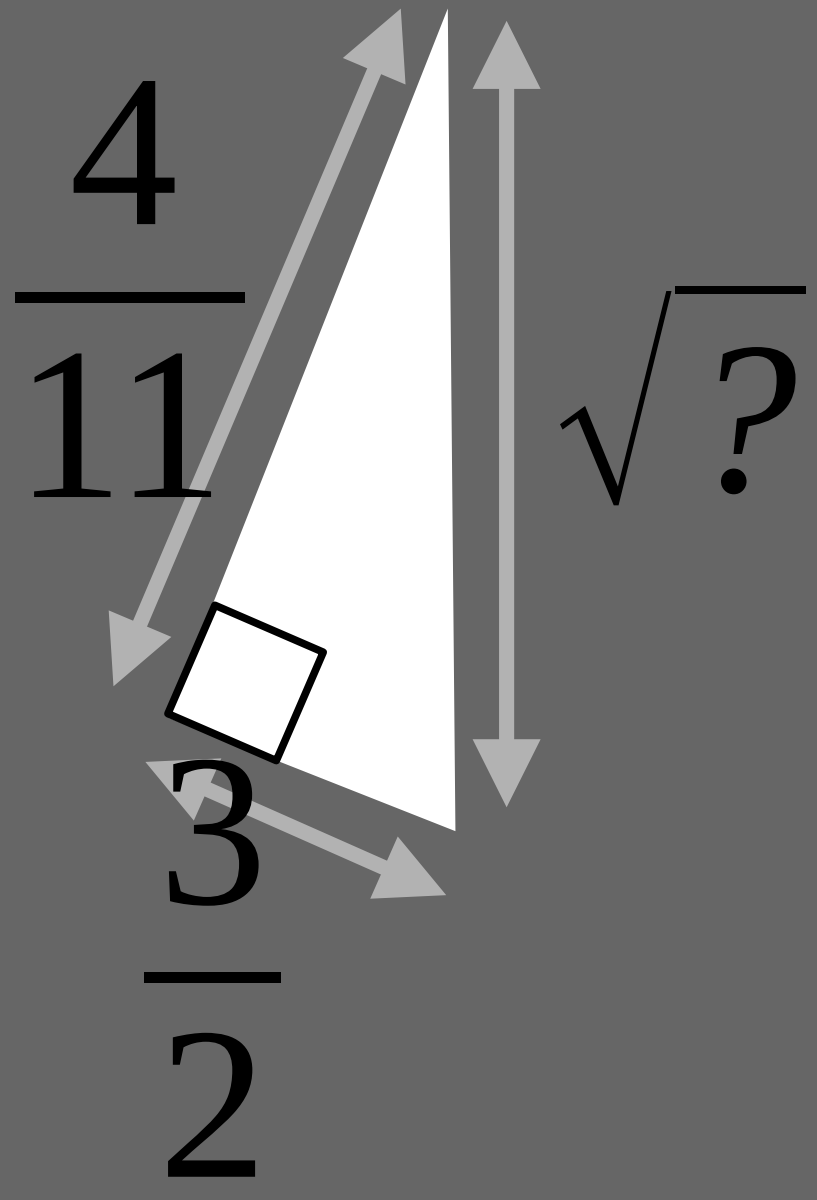
Pas d’angle droit :

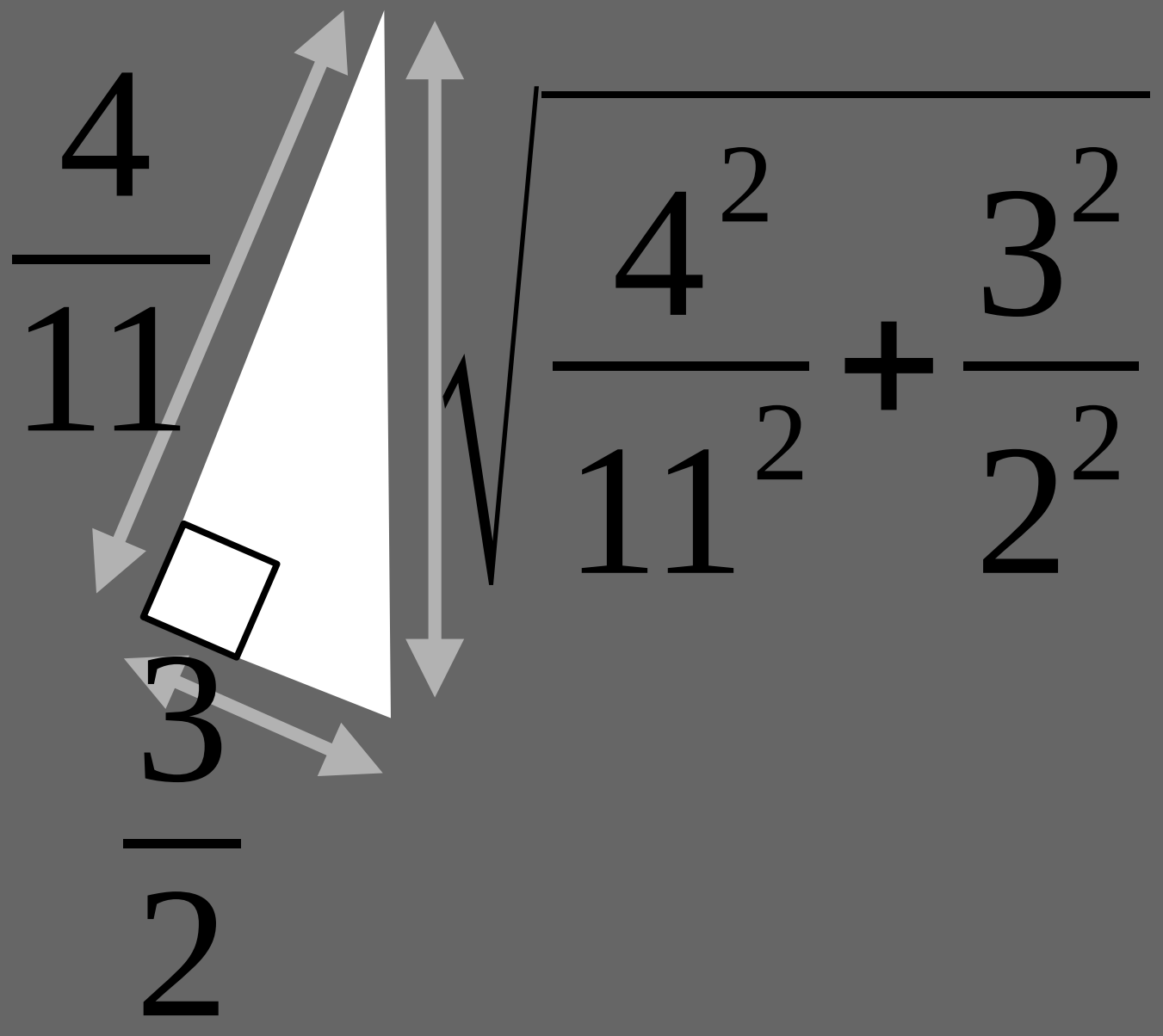


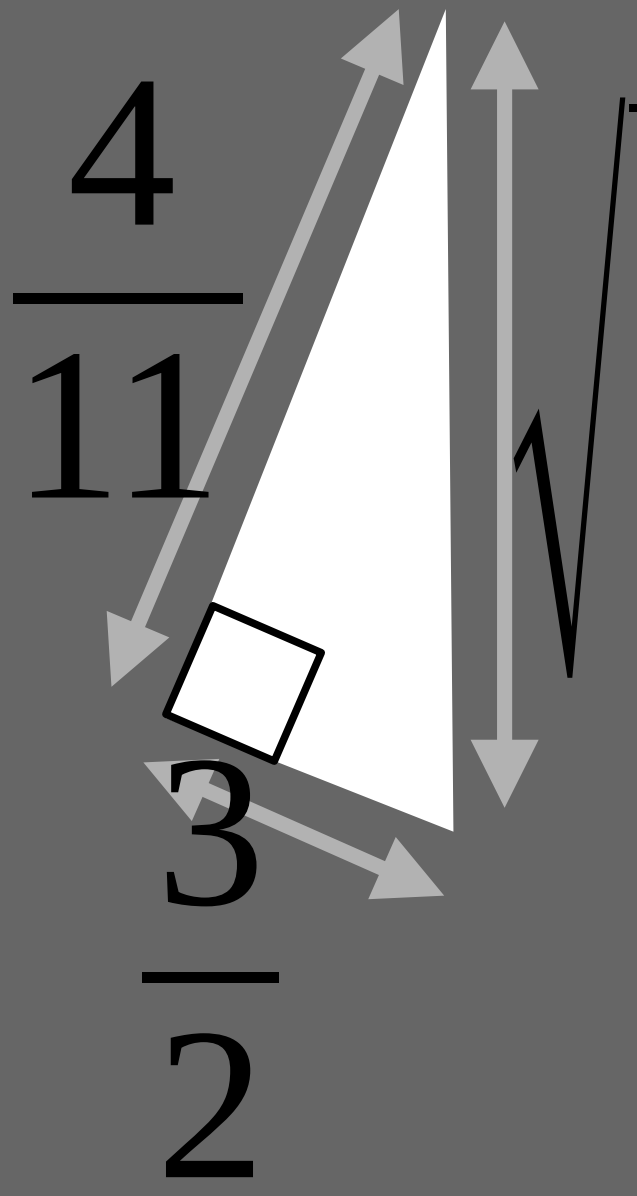
on ne peut pas utiliser le théorème

Défi

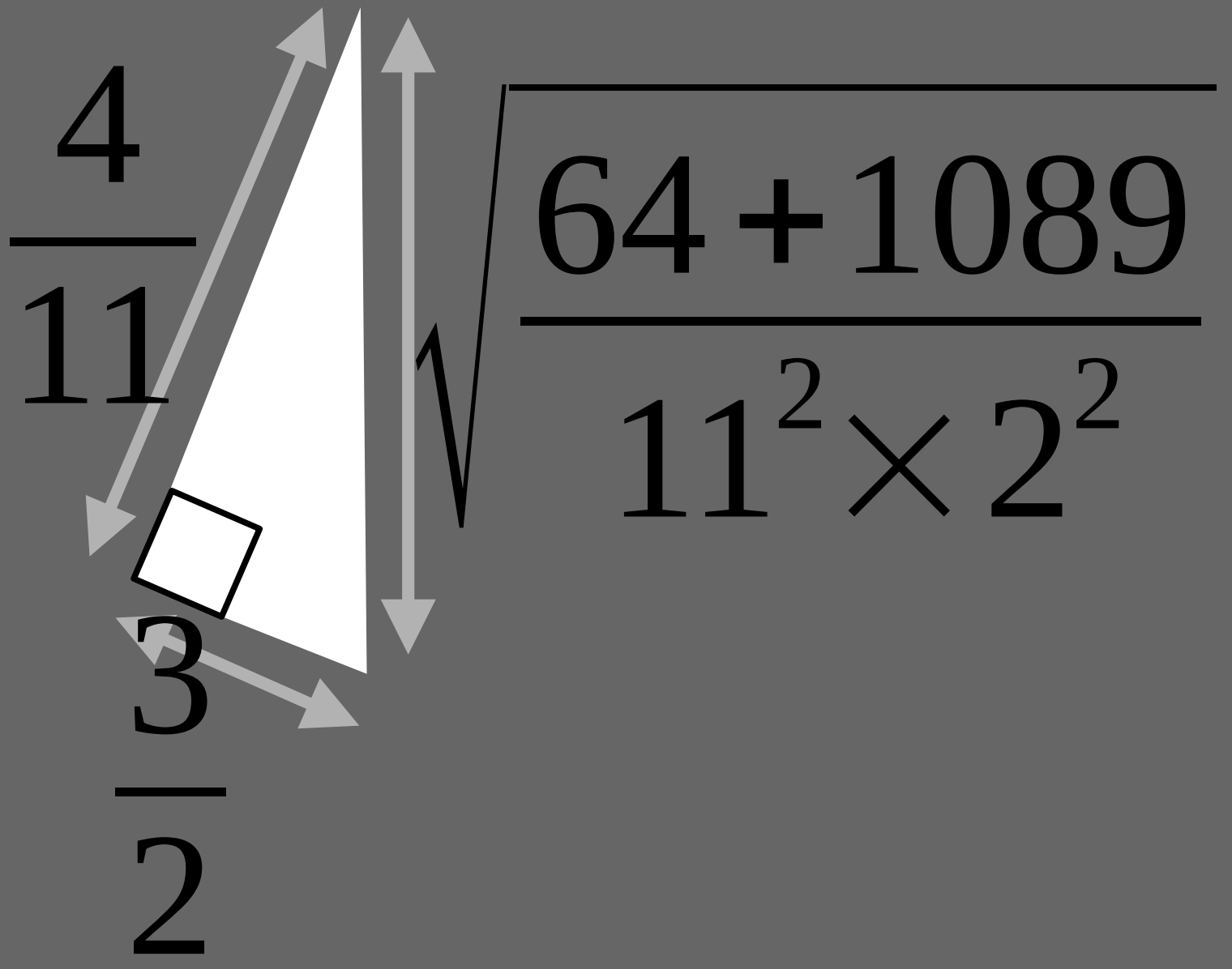

4
11
?
3
2

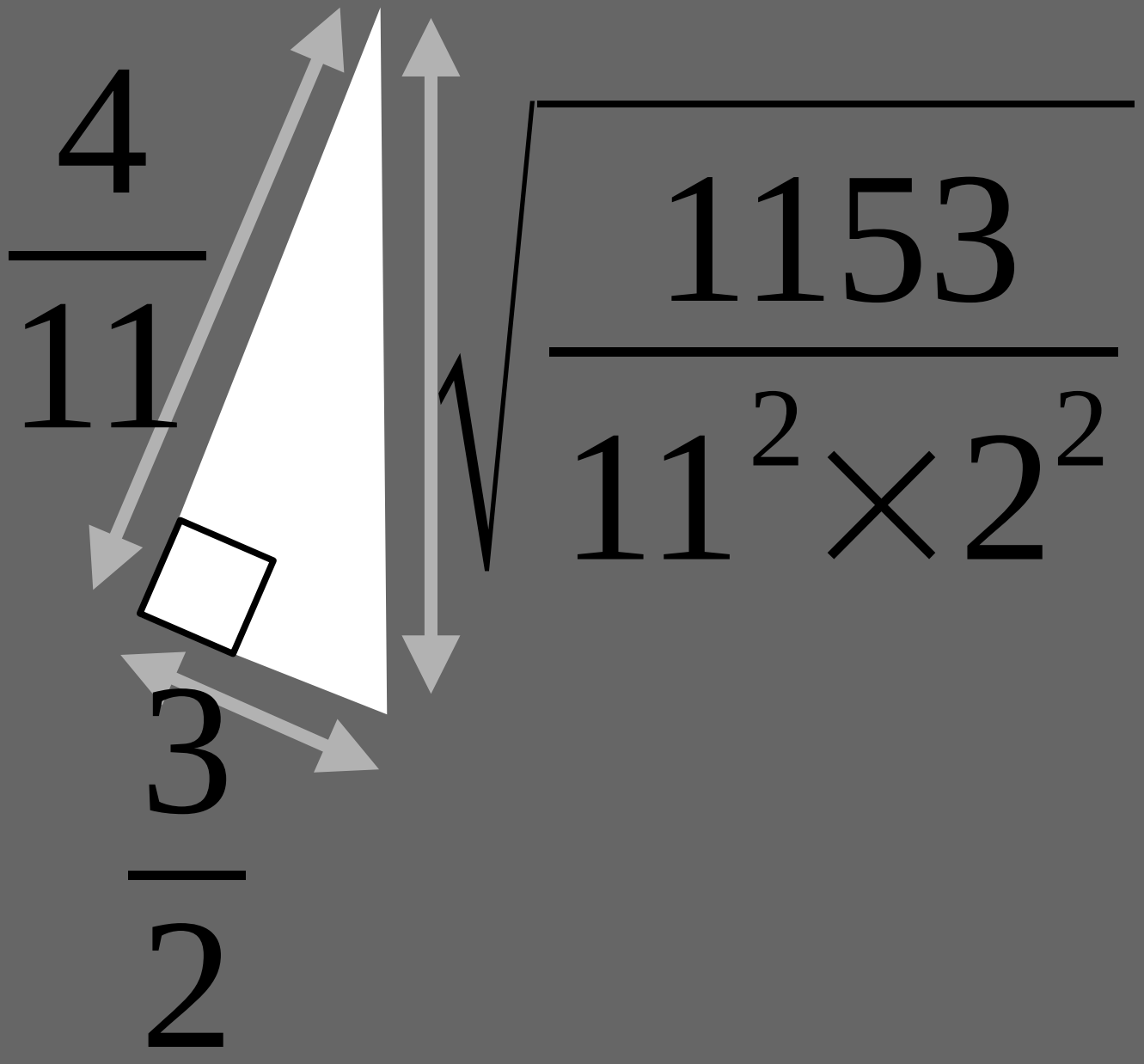

4
11
√?
3
2

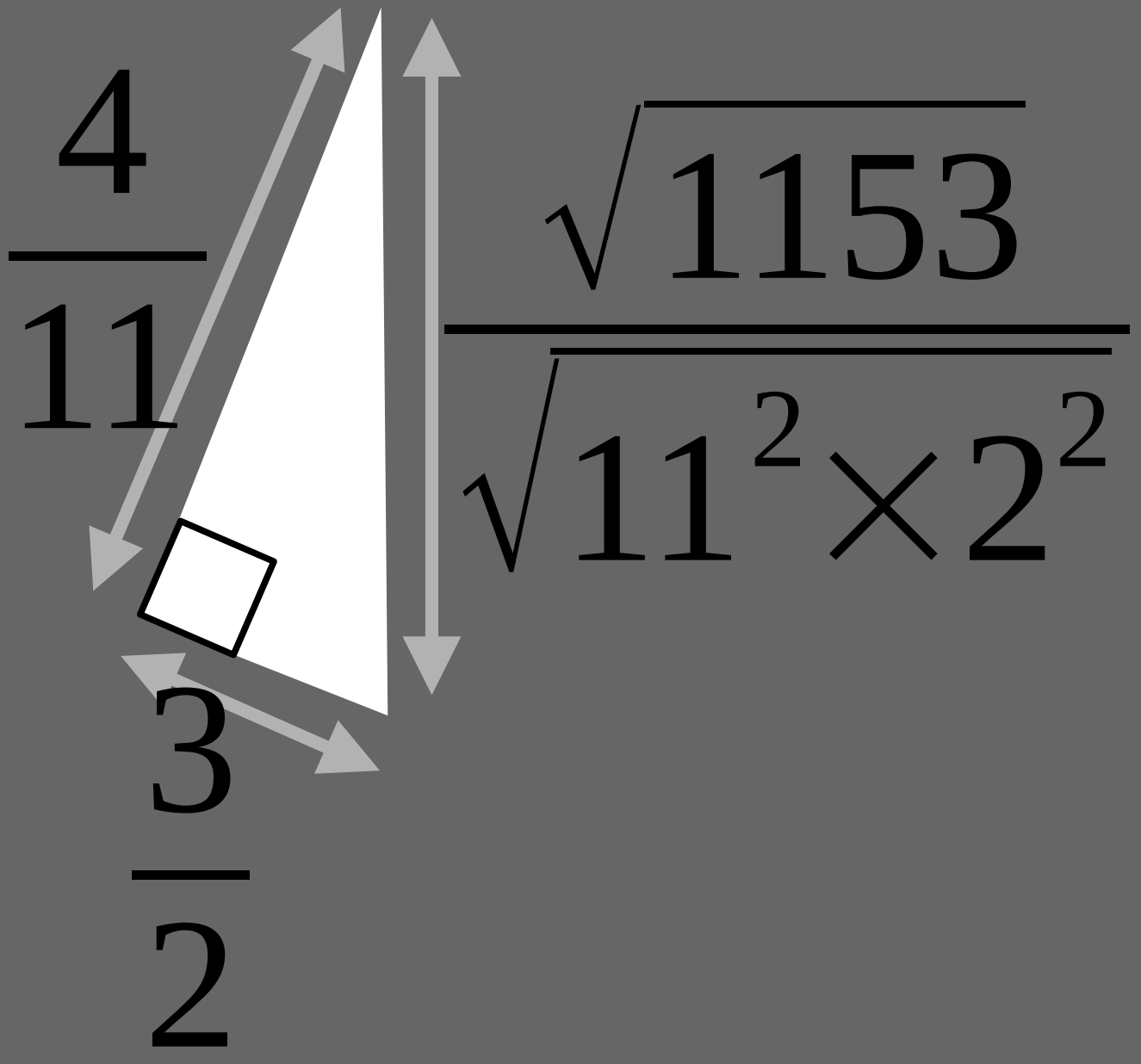

4/11
√(4²/11² + 3²/2²)
3/2

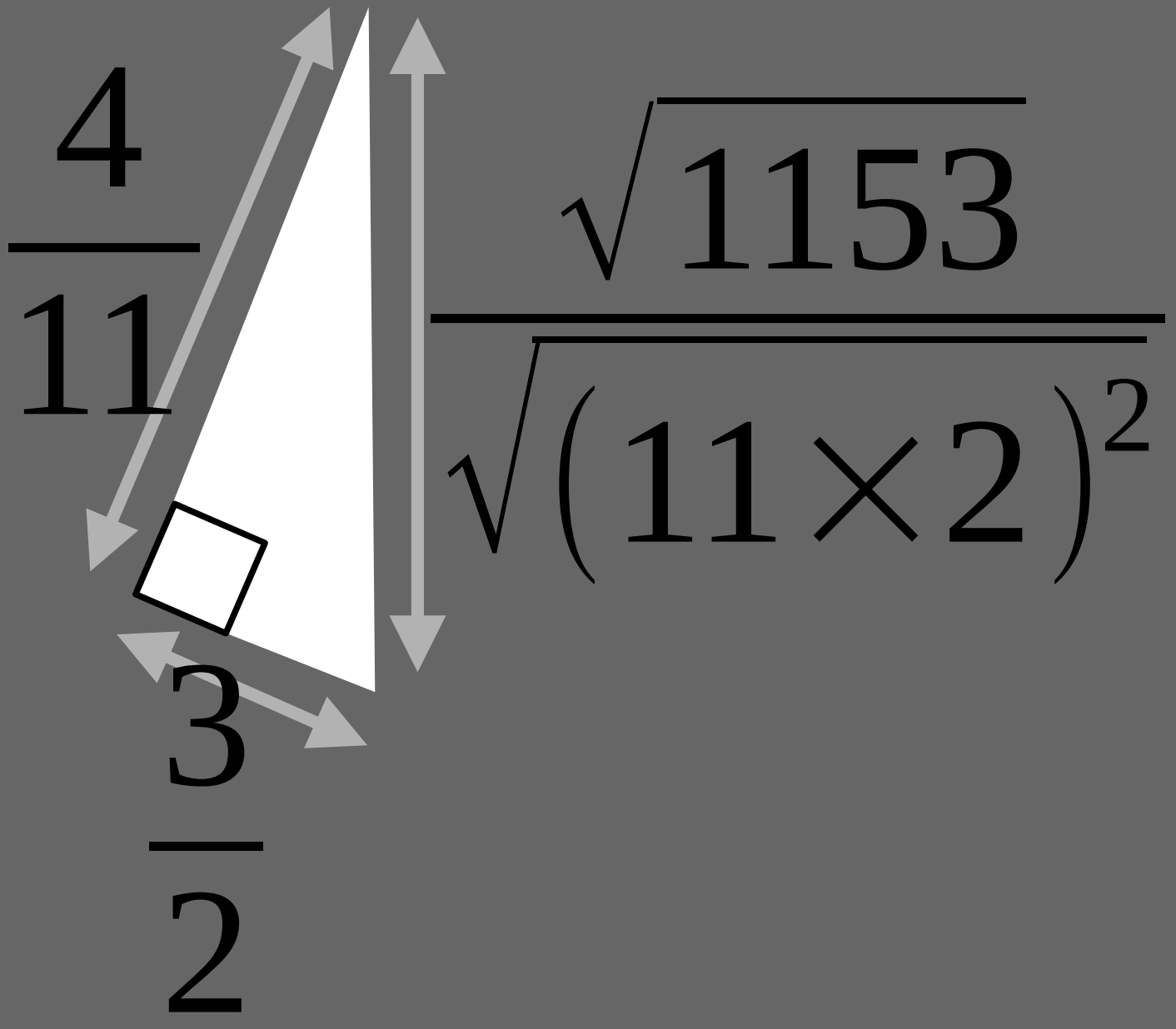


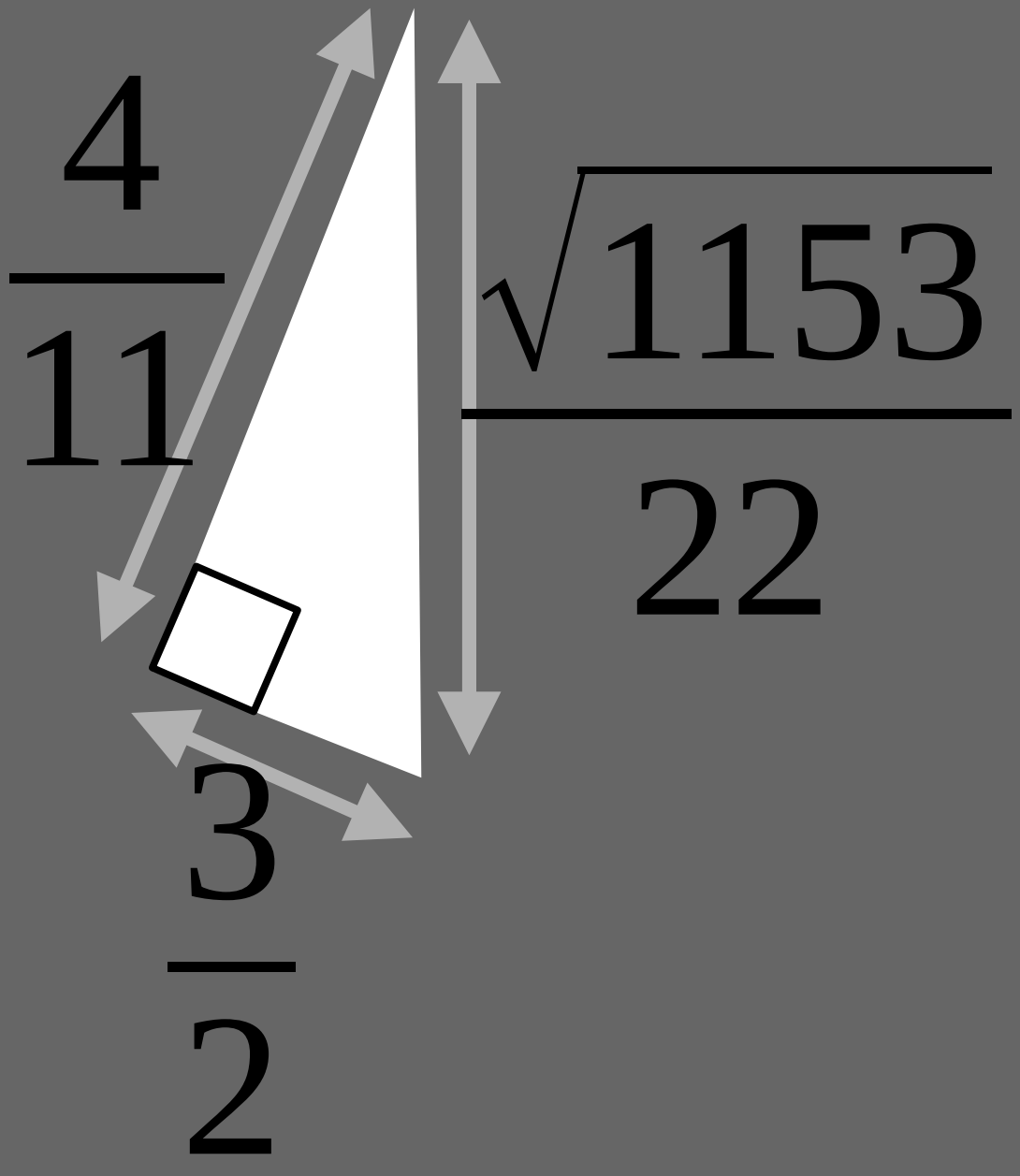
$$\sqrt{\frac{4^2\times2^2+3^2\times11^2}{11^2\times2^2}}$$


4/11
√(64+1089)/(11²×2²)
3/2

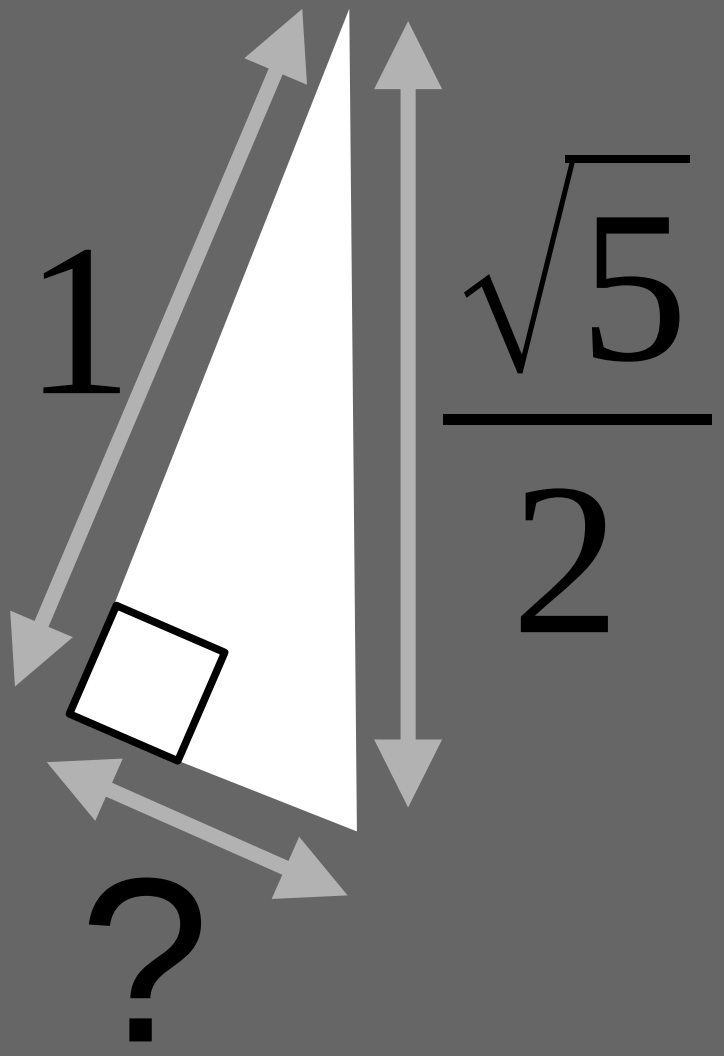

$\frac{4}{11}$
$\sqrt{\frac{1153}{11^2 \times 2^2}}$
$\frac{3}{2}$

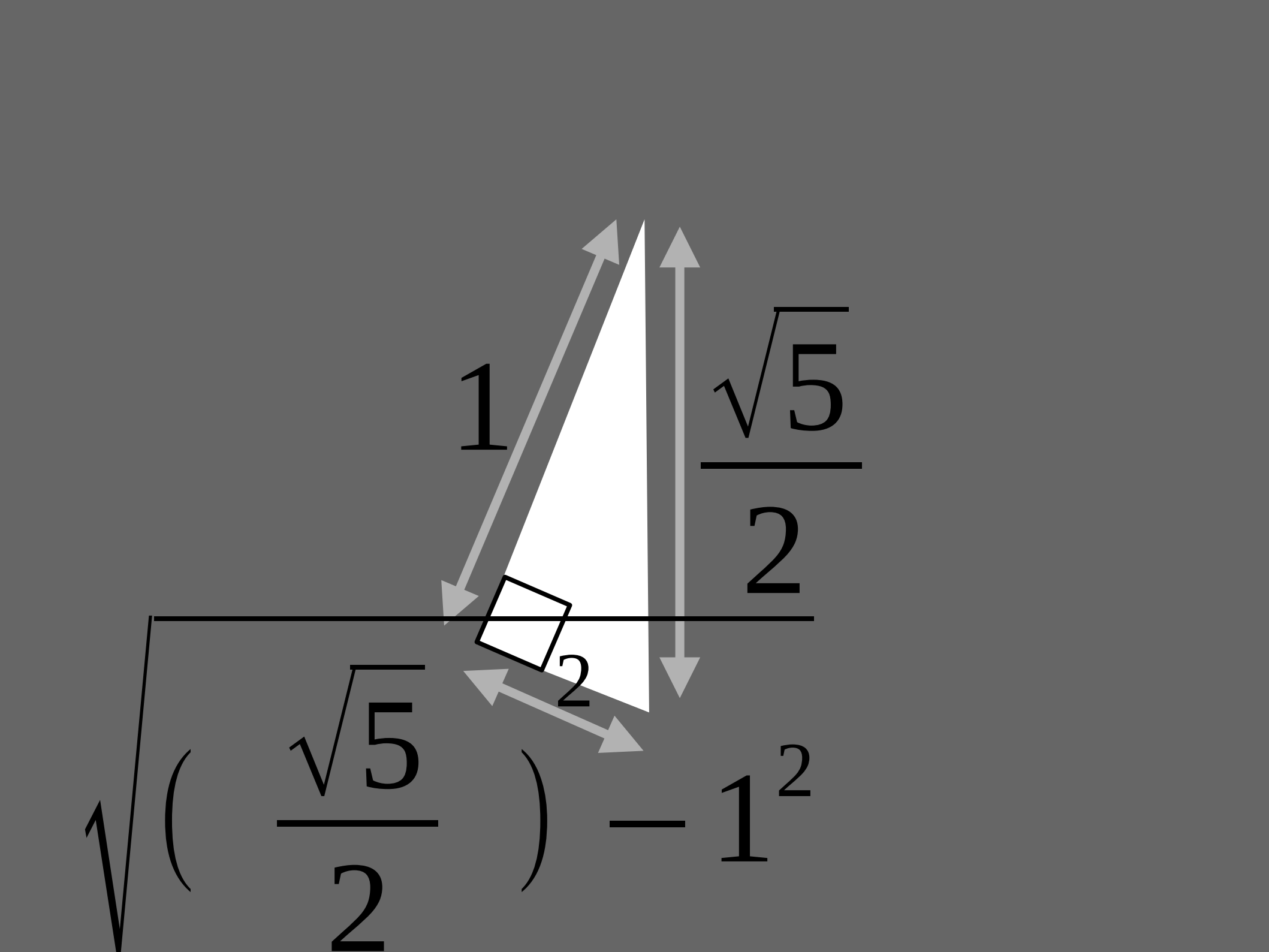

$\frac{4}{11}$
$\frac{\sqrt{1153}}{\sqrt{11^2 \times 2^2}}$
$\frac{3}{2}$

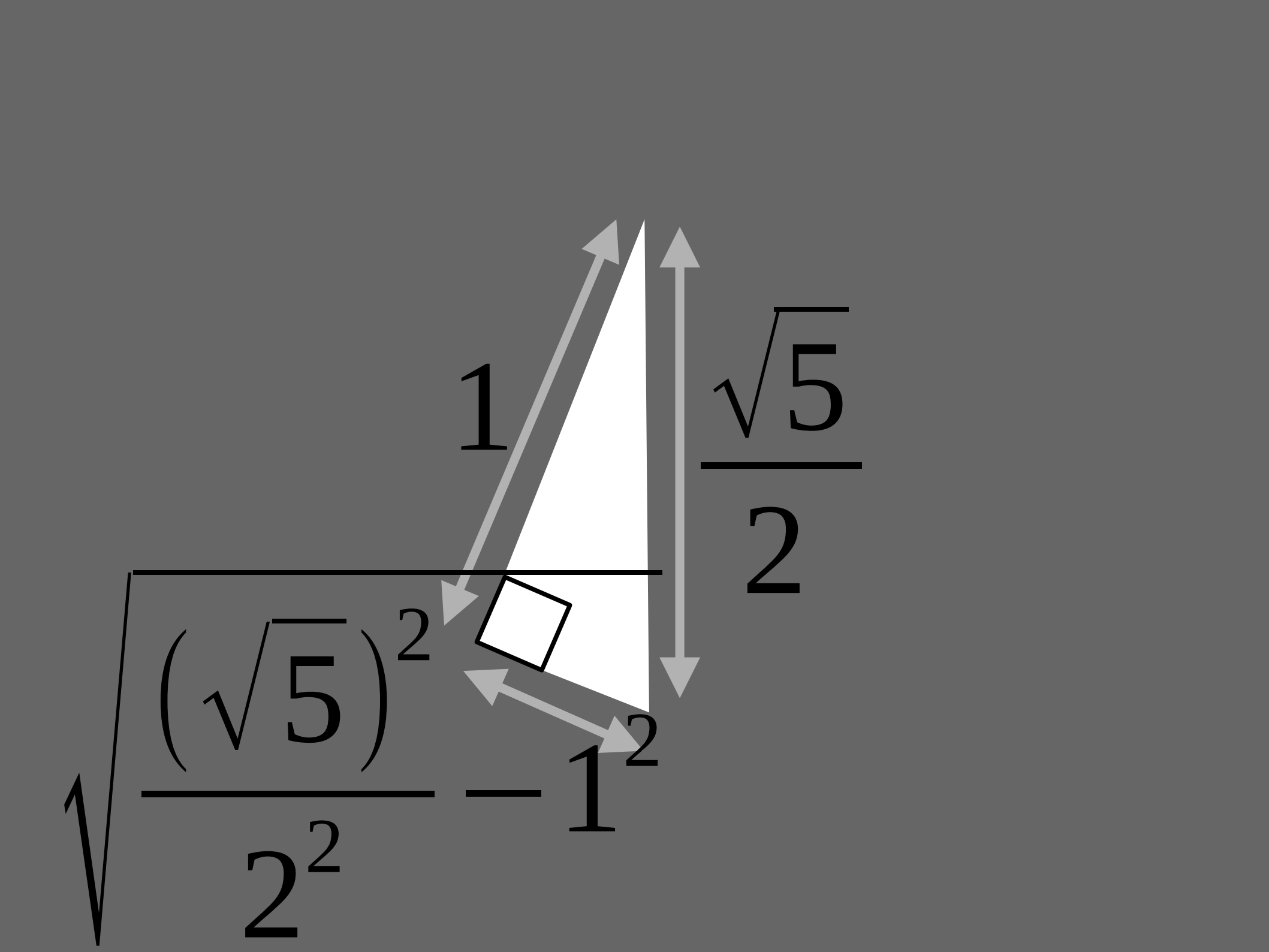

$\frac{4}{11}$
$\frac{\sqrt{1153}}{\sqrt{(11\times2)^2}}$
$\frac{3}{2}$

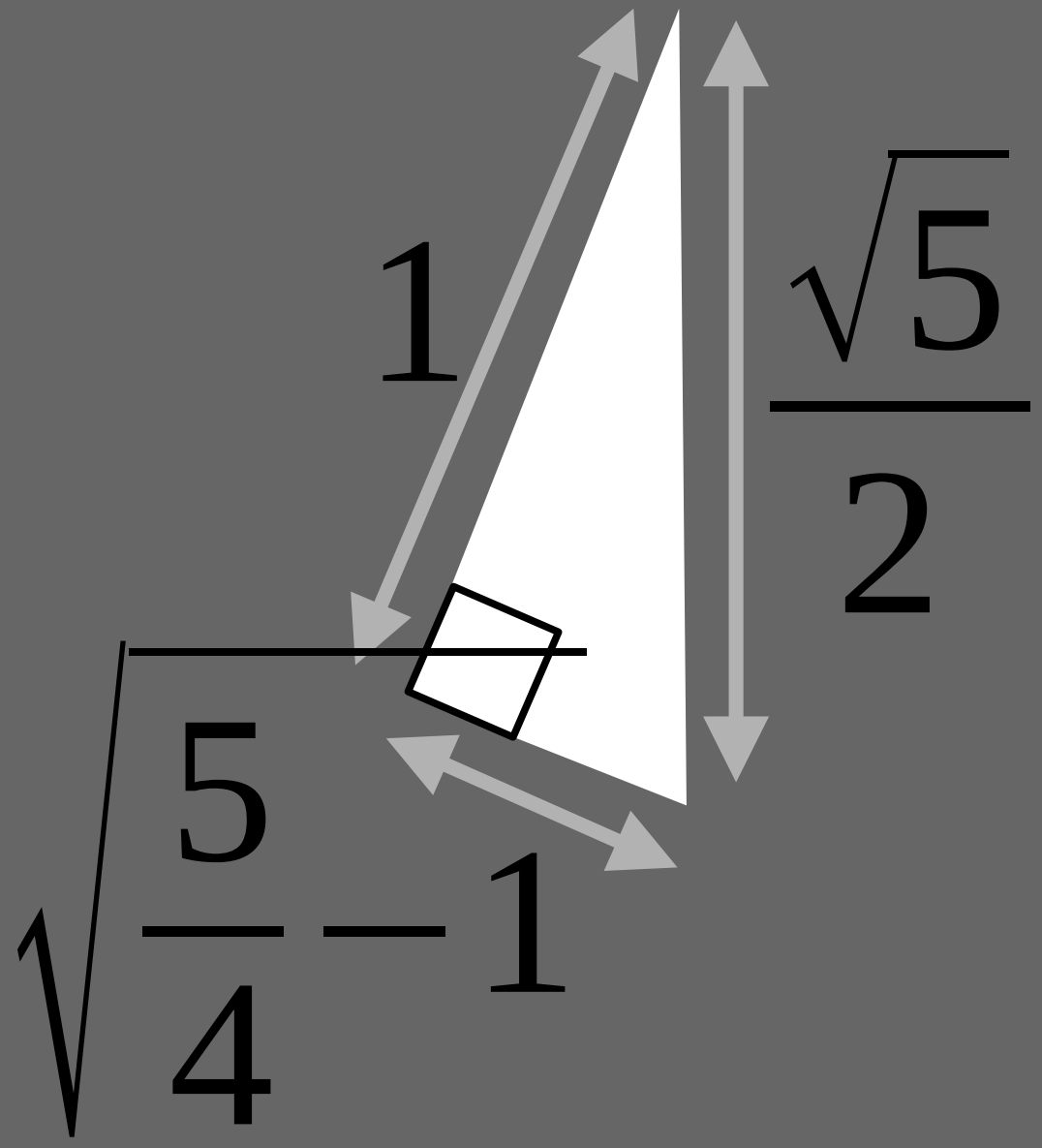

$\frac{4}{11}$
$\frac{\sqrt{1153}}{22}$
$\frac{3}{2}$

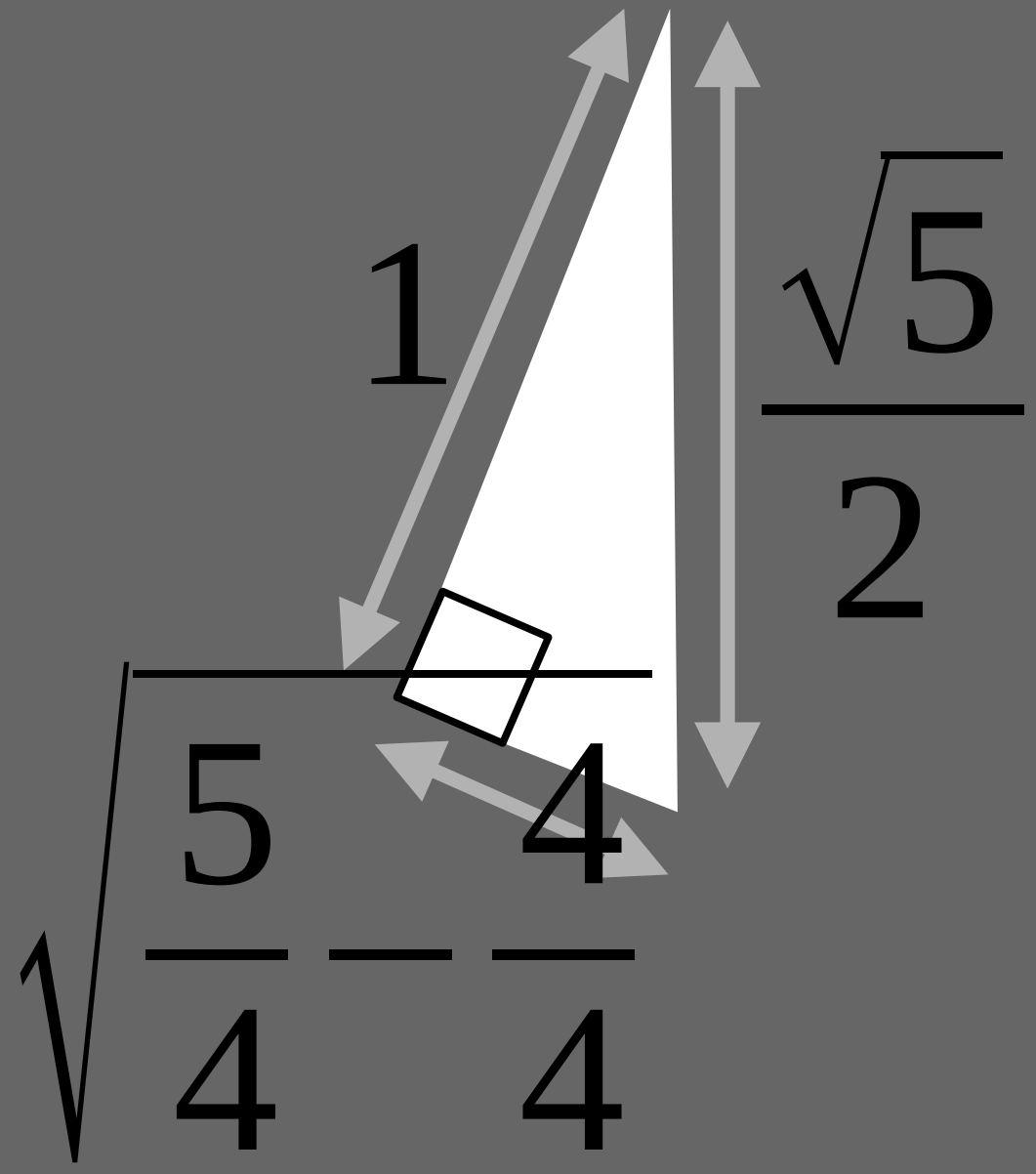
Calcule
la longueur
du côté manquant

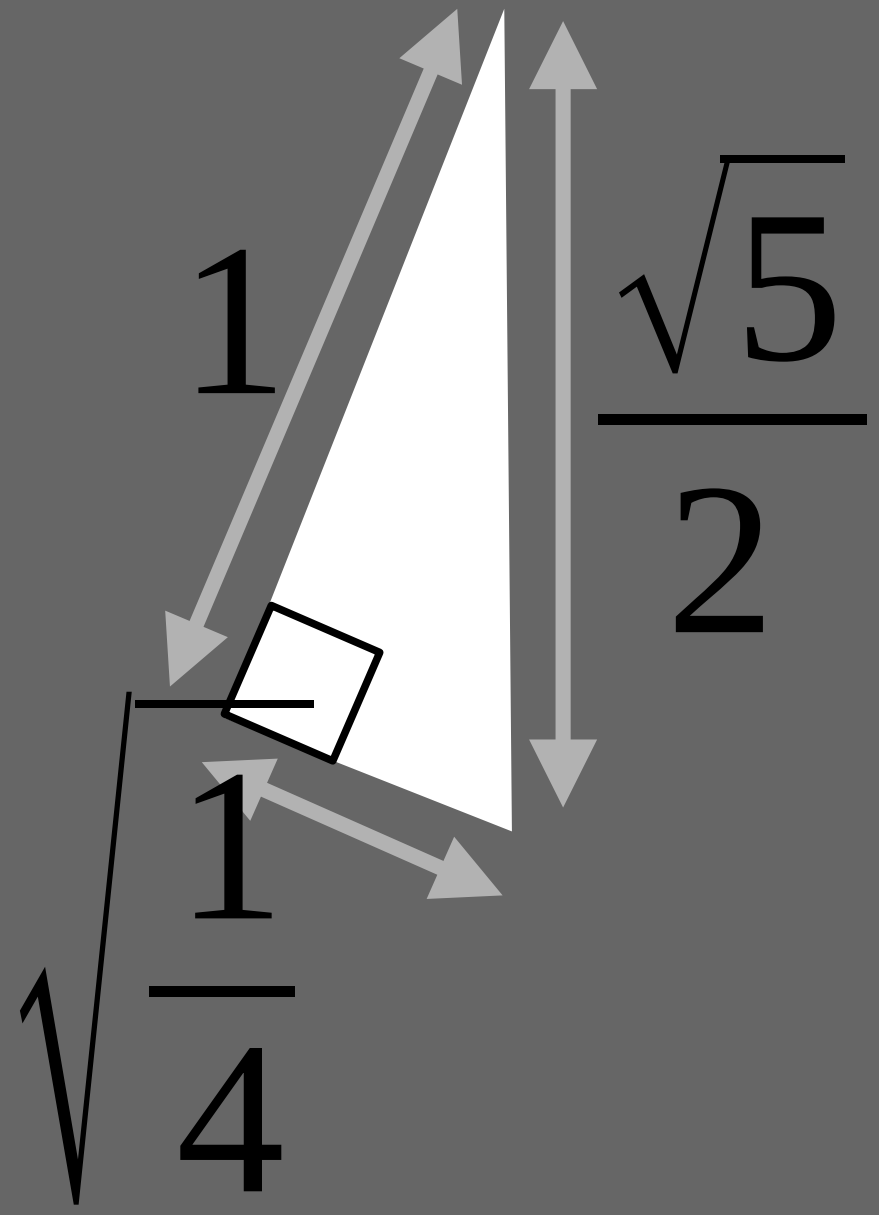

1
$\frac{\sqrt{5}}{2}$
?

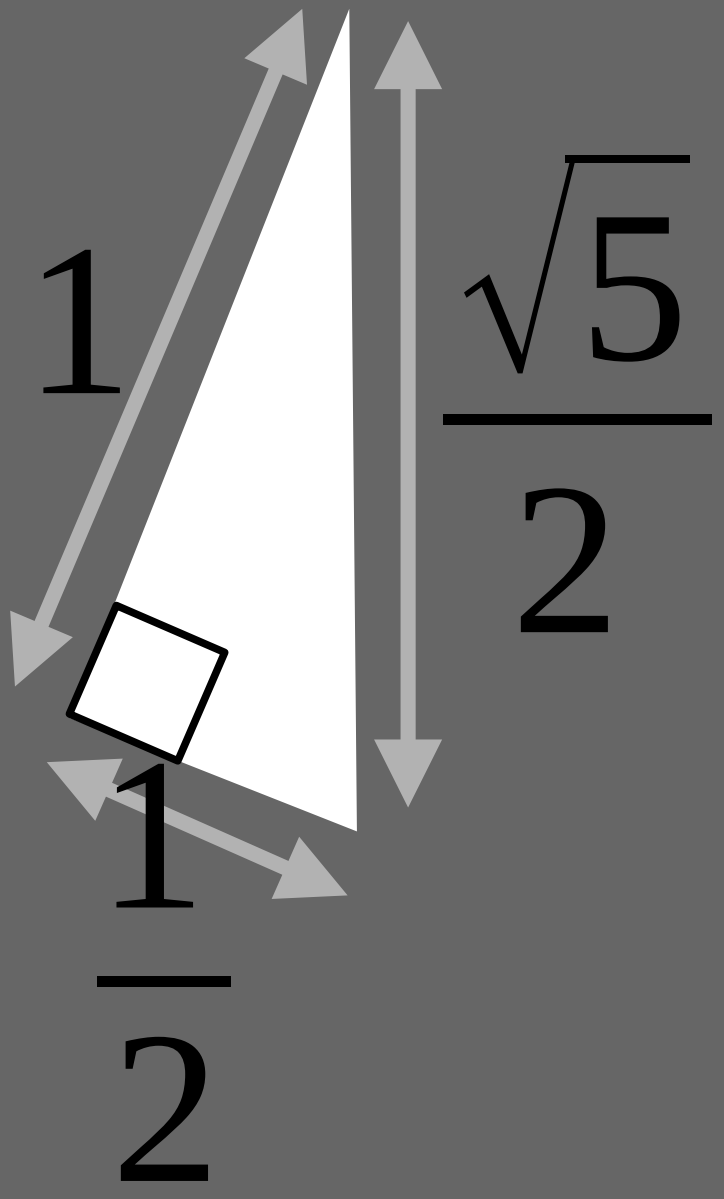

1
$\frac{\sqrt{5}}{2}$
2
$\sqrt{\left(\frac{\sqrt{5}}{2}\right)-1^2}$


1
$\frac{\sqrt{5}}{2}$
$\sqrt{\frac{(\sqrt{5})^2}{2^2} - 1^2}$


1
$\frac{\sqrt{5}}{2}$
$\sqrt{\frac{5}{4}} - 1$


1
$\frac{\sqrt{5}}{2}$
$\sqrt{\frac{5}{4}-\frac{4}{4}}$


1
$\frac{\sqrt{5}}{2}$
$\sqrt{\frac{1}{4}}$
1


1
$\frac{\sqrt{5}}{2}$
$\frac{1}{2}$

Bien joué !