



1/6

1/10

1/6

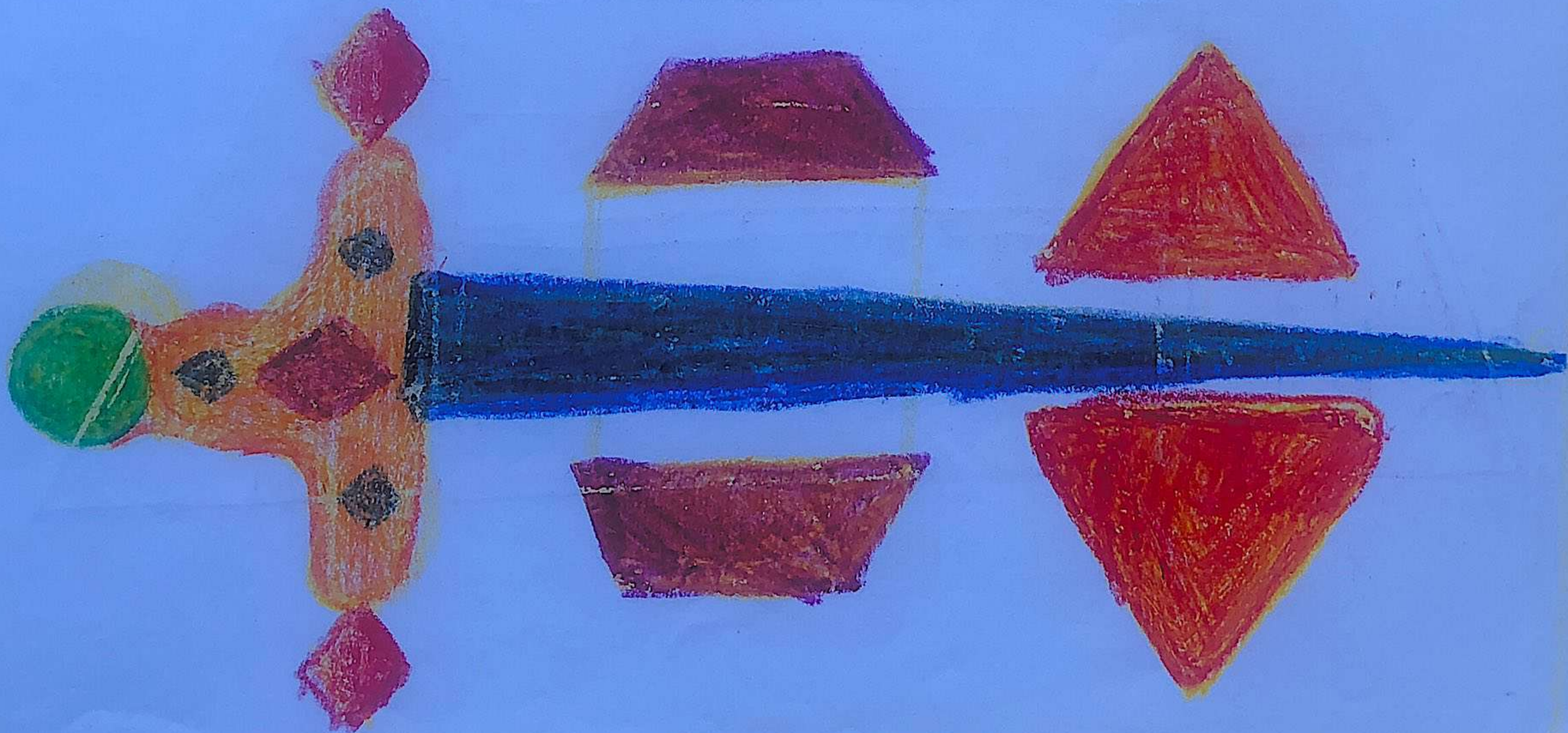
1/10

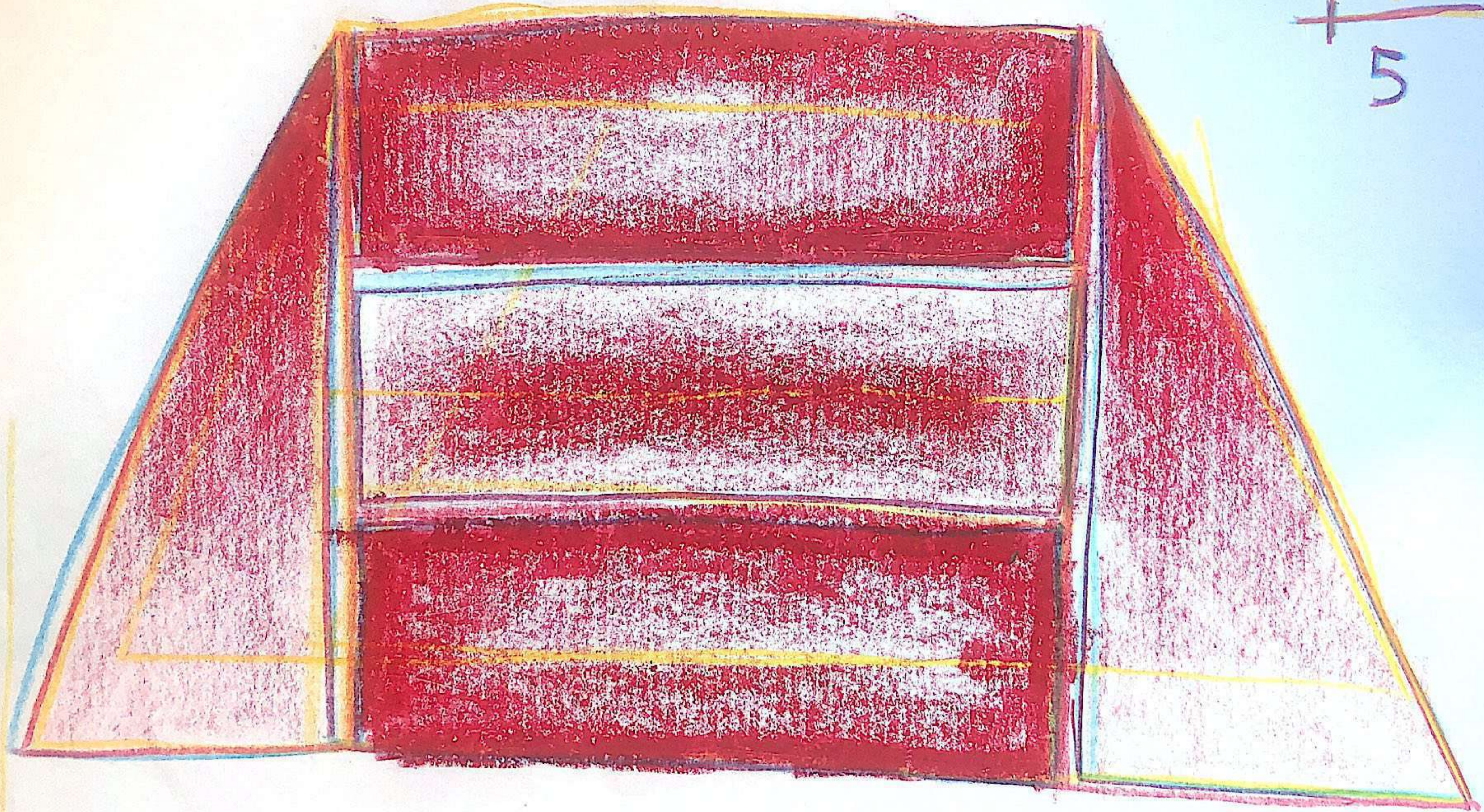
1/6

1/6

“MÖRMINGAR”

La espada magica de Loki



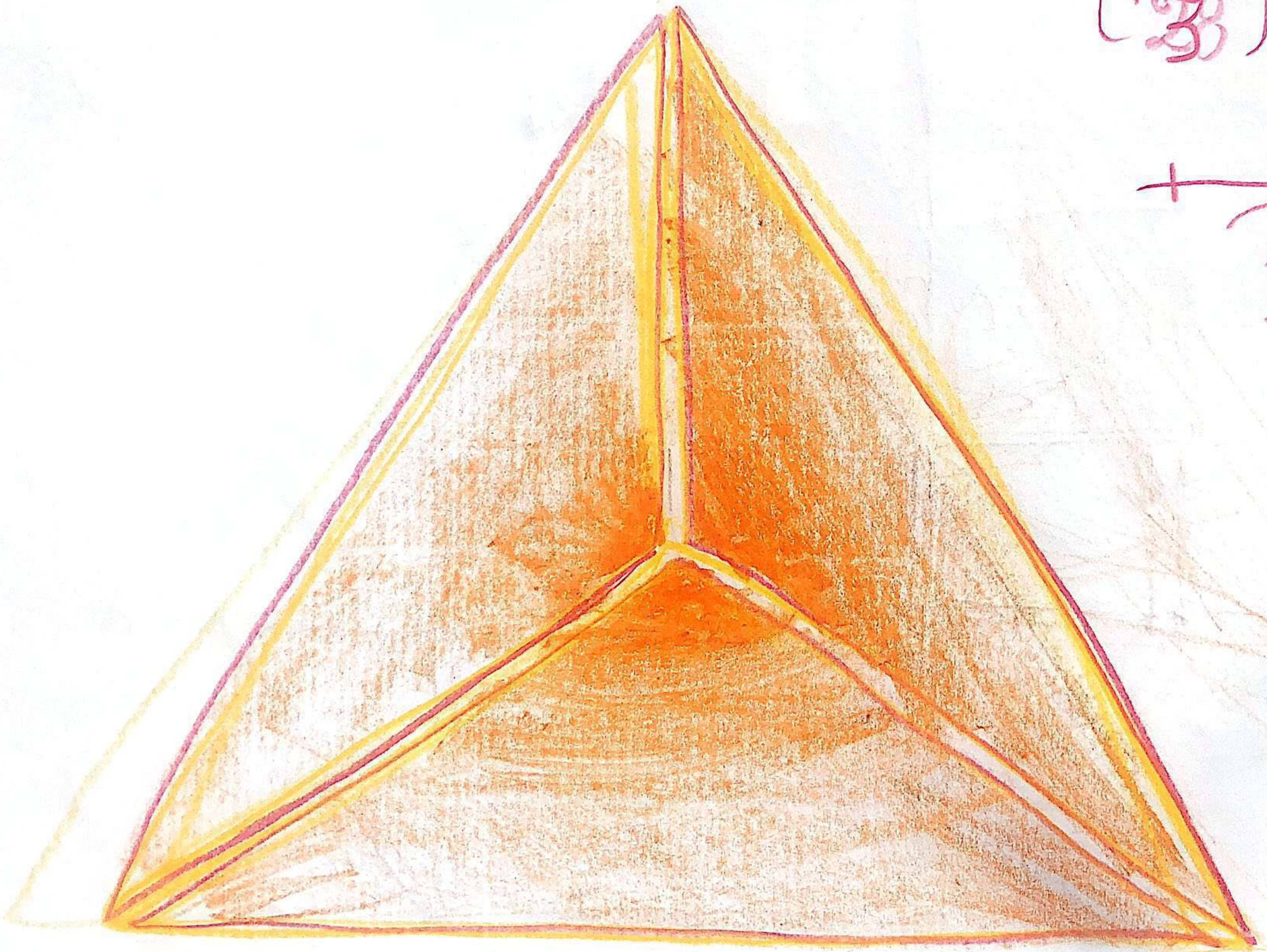


$$\begin{array}{r} 6 \\ + \\ 5 \\ \hline \end{array}$$

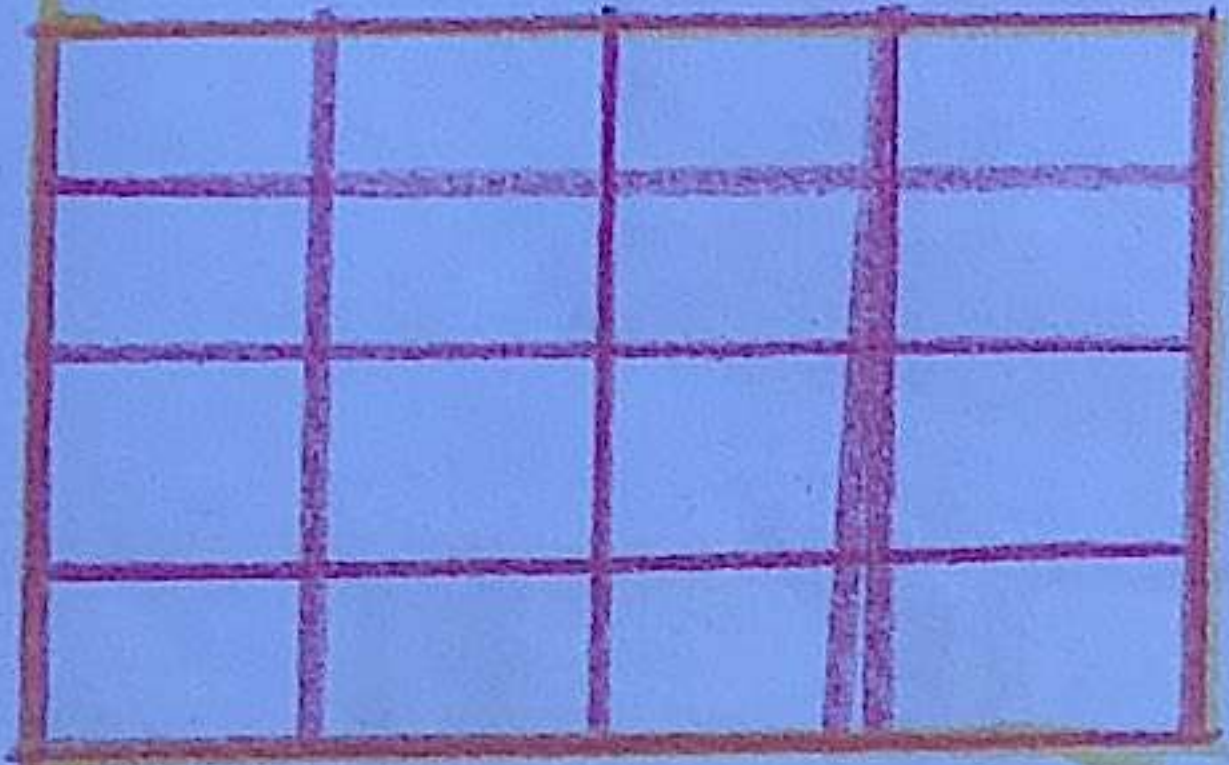
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(33)

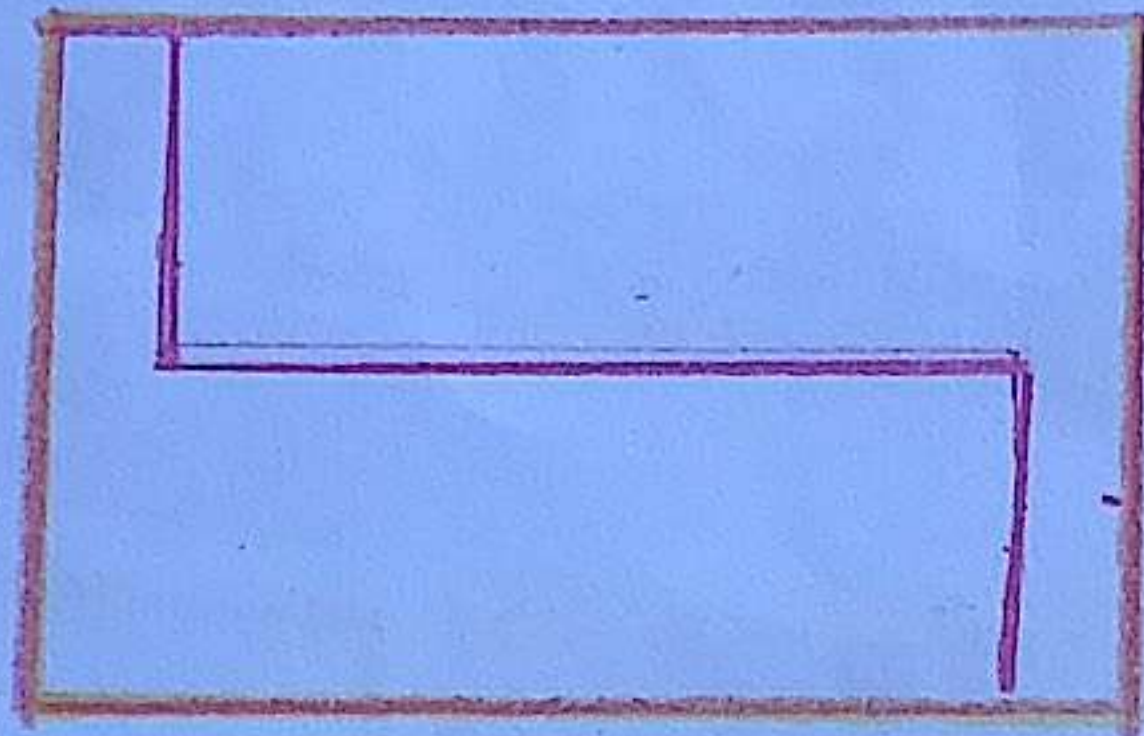
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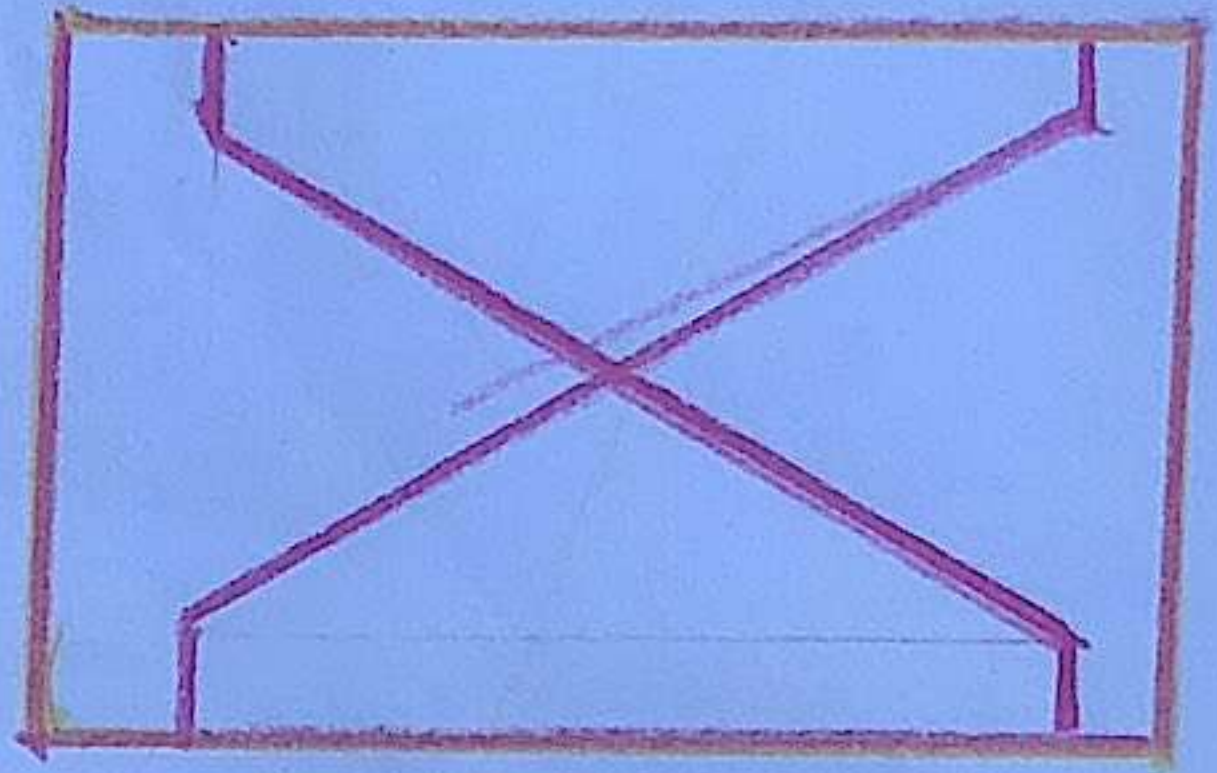
$\frac{4}{16}$



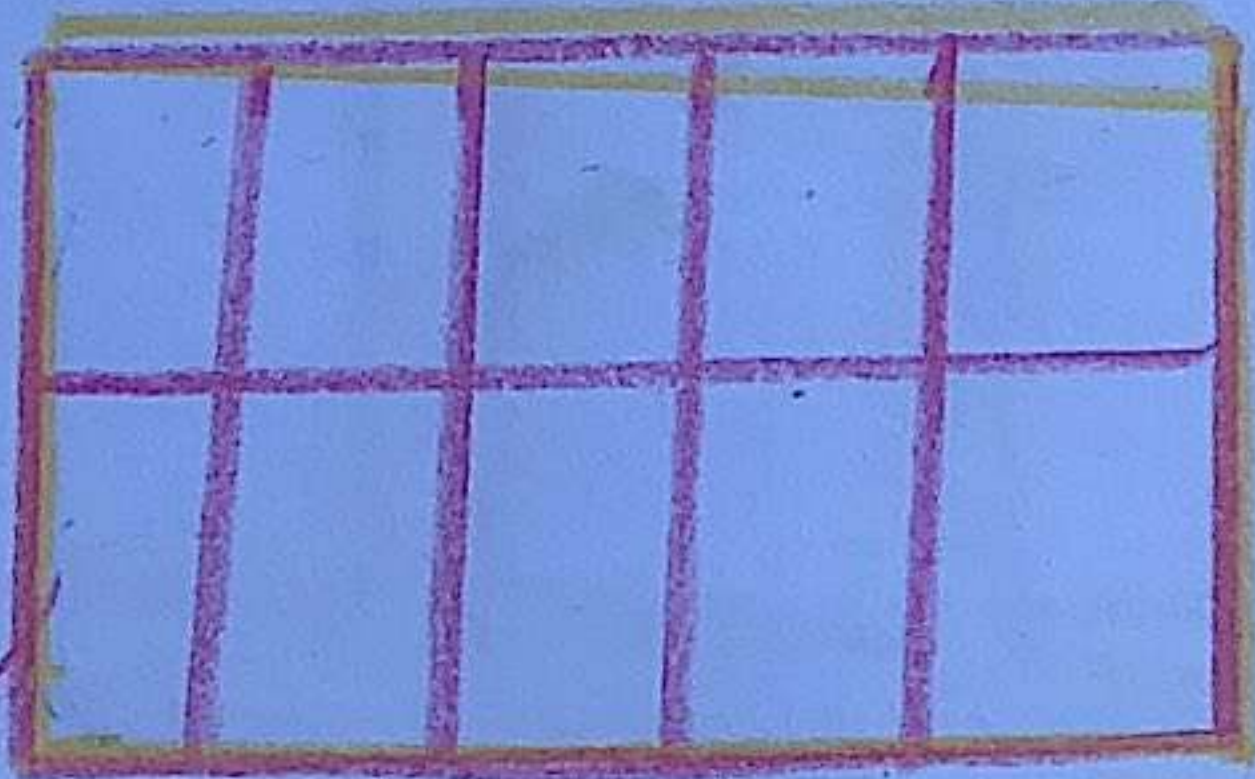
$\frac{2}{2}$



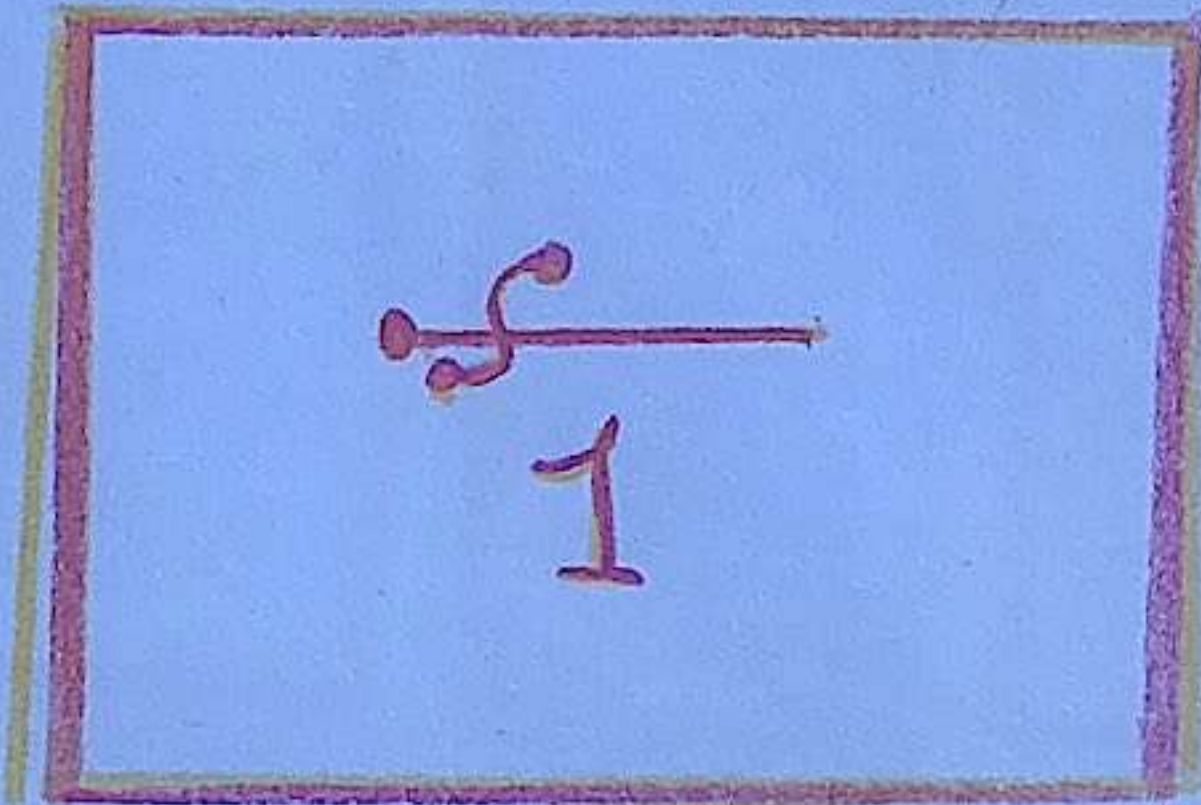
$\frac{4}{4}$



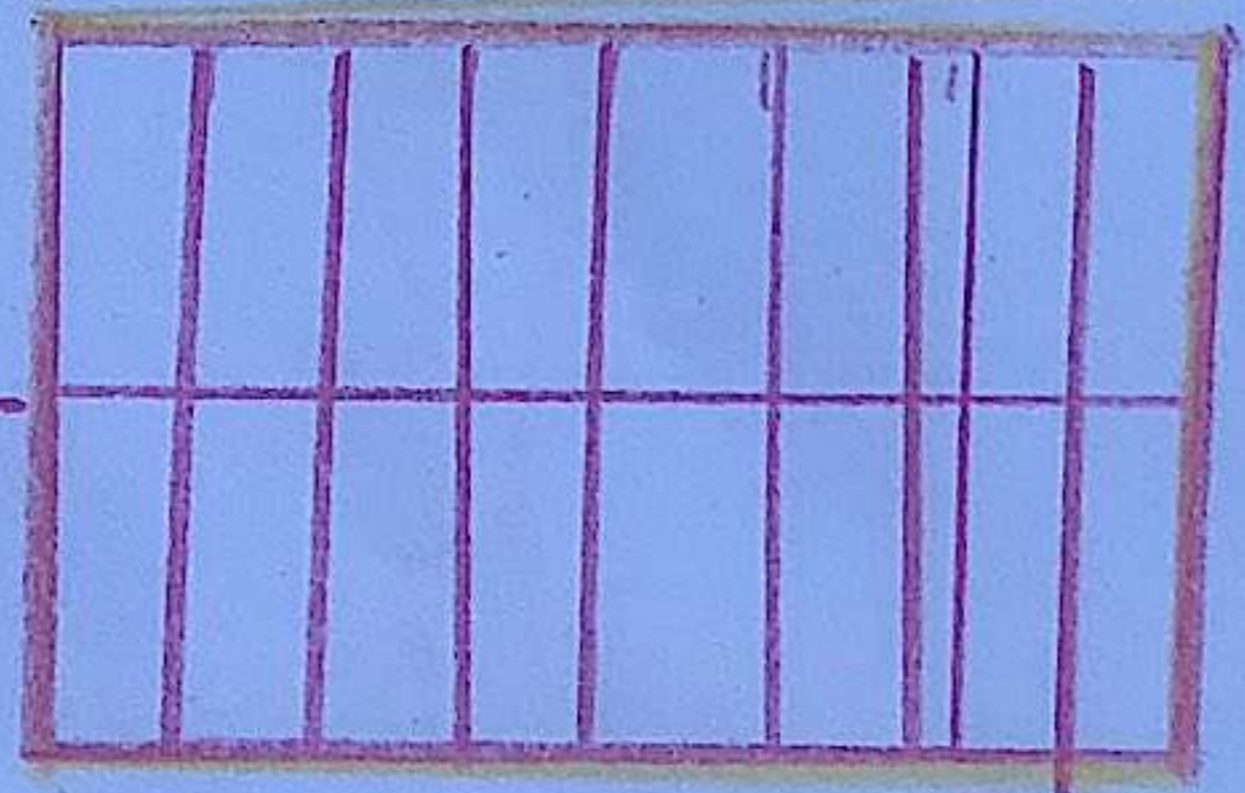
$\frac{10}{10}$



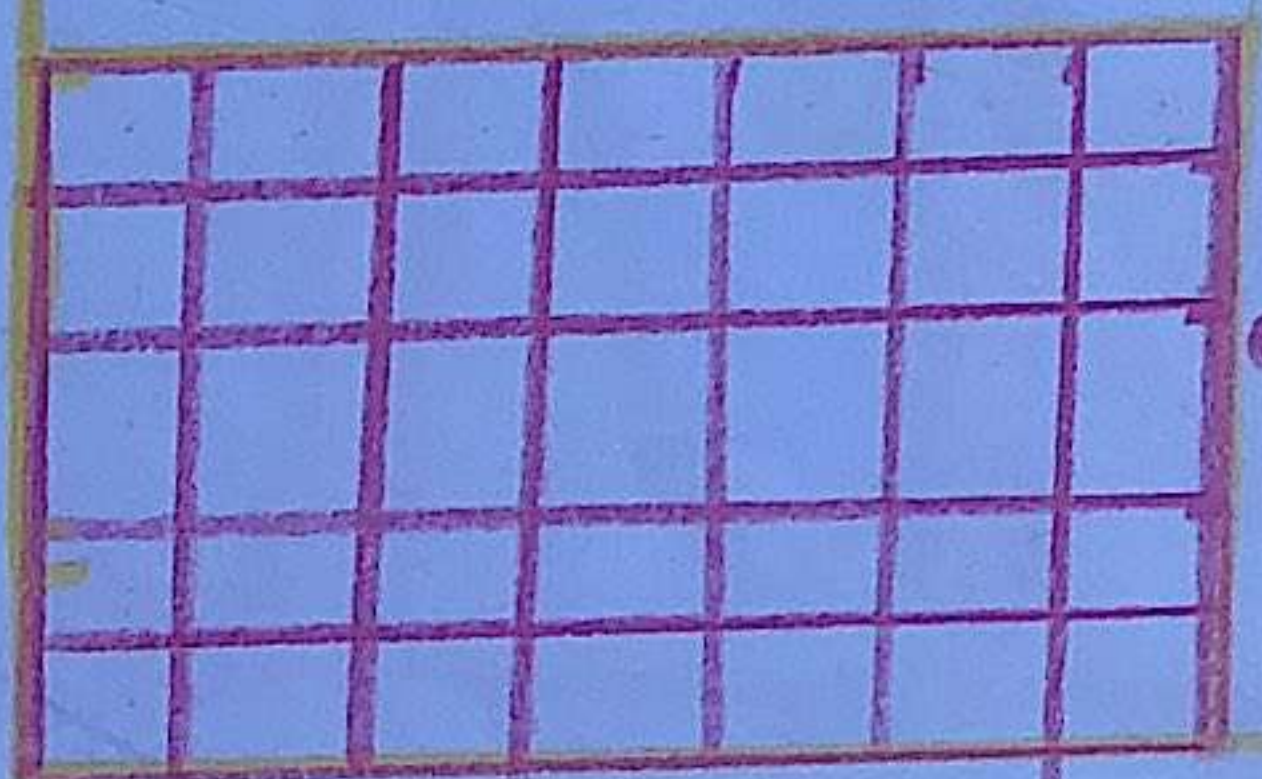
$\frac{1}{1}$



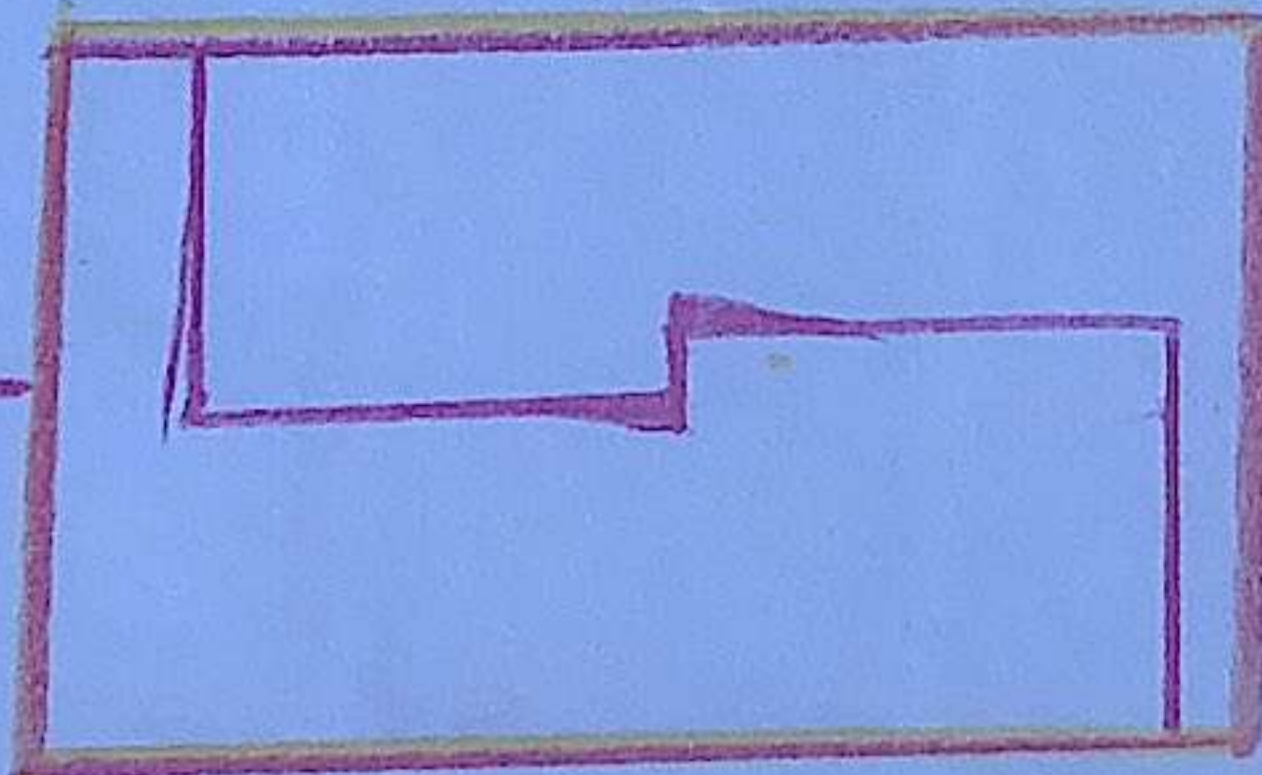
$\frac{3}{16}$



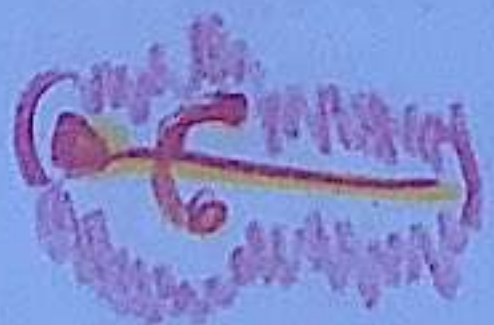
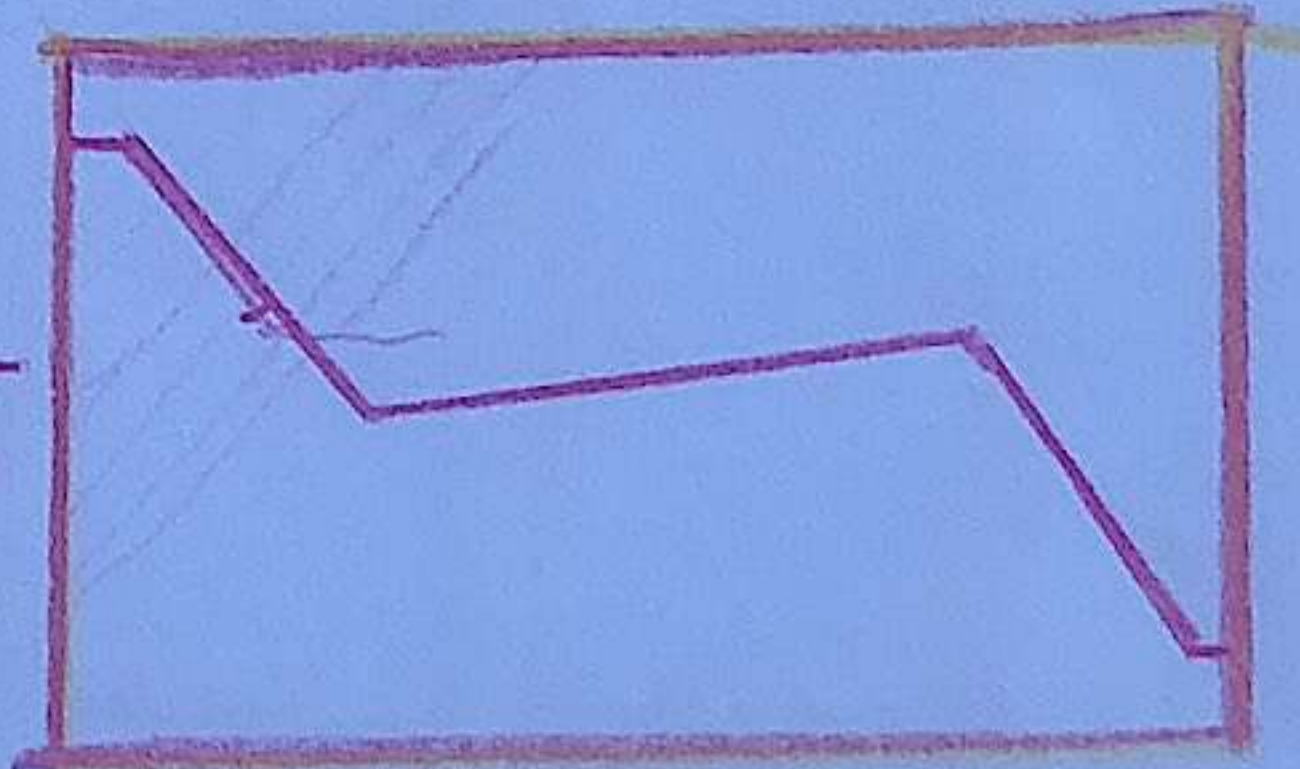
$\frac{35}{35}$



$\frac{2}{2}$



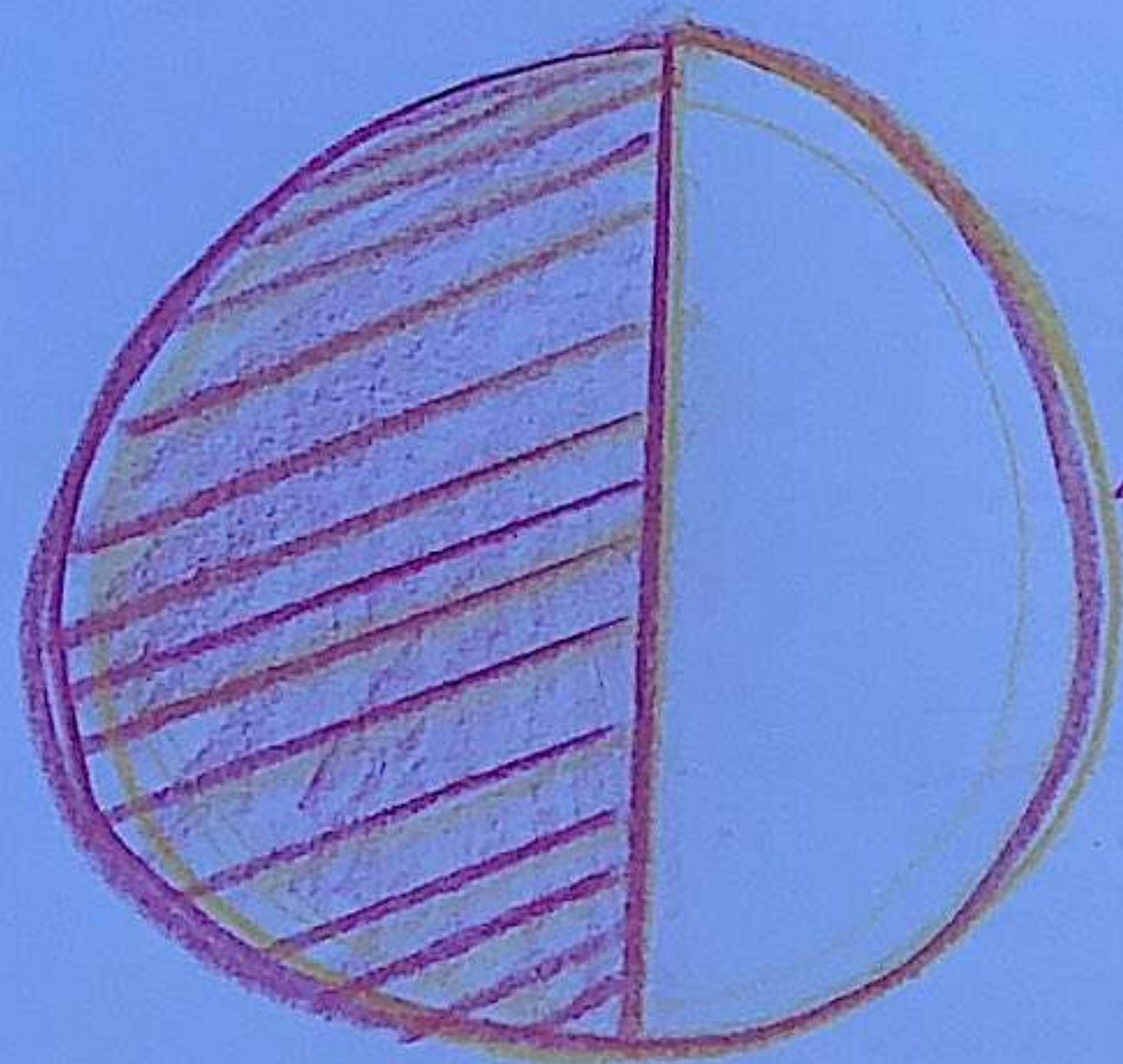
$\frac{2}{2}$



“Tom 08 de 16”

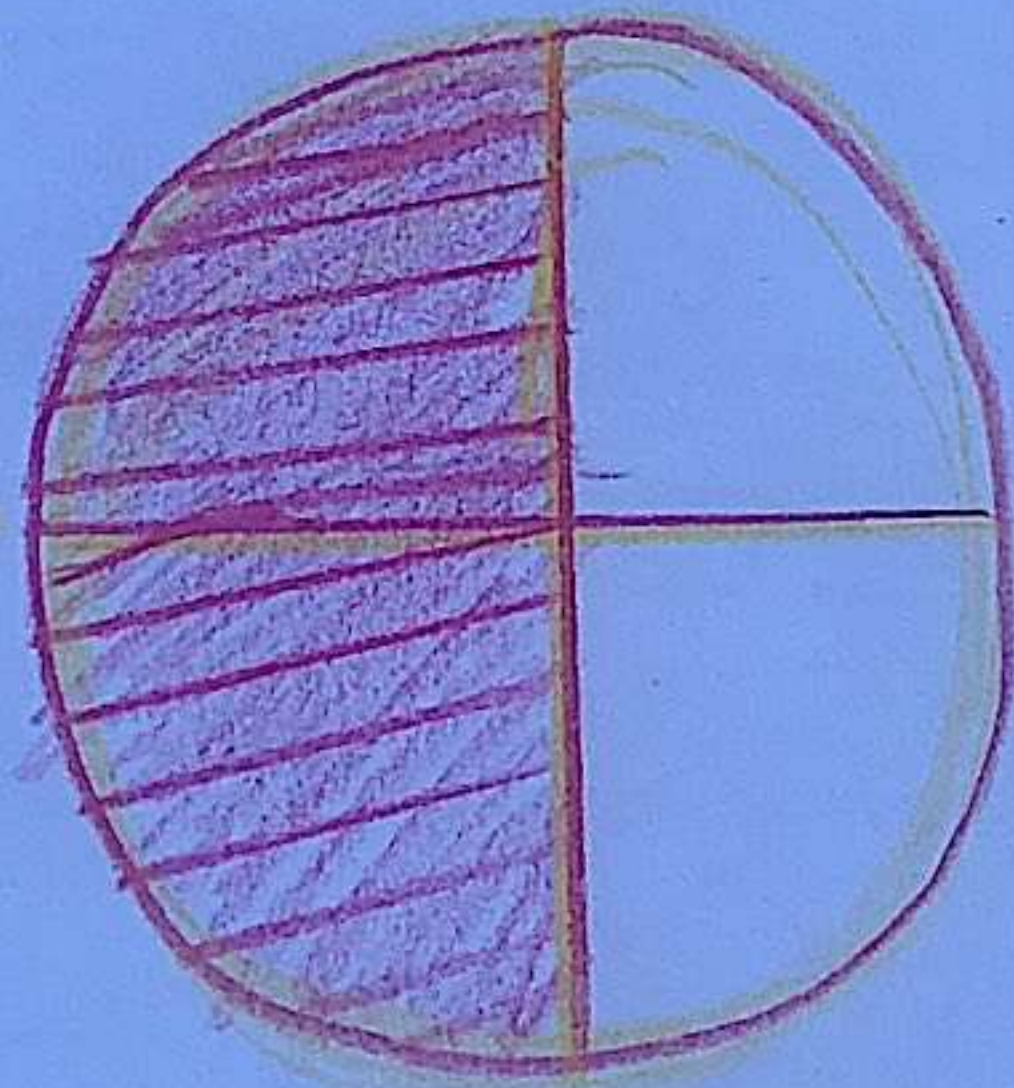
Shaded	Shaded	Shaded	Shaded	Empty	Empty	Empty	Empty
Shaded	Shaded	Shaded	Shaded	Empty	Empty	Empty	Empty

Tomamos lo mismo



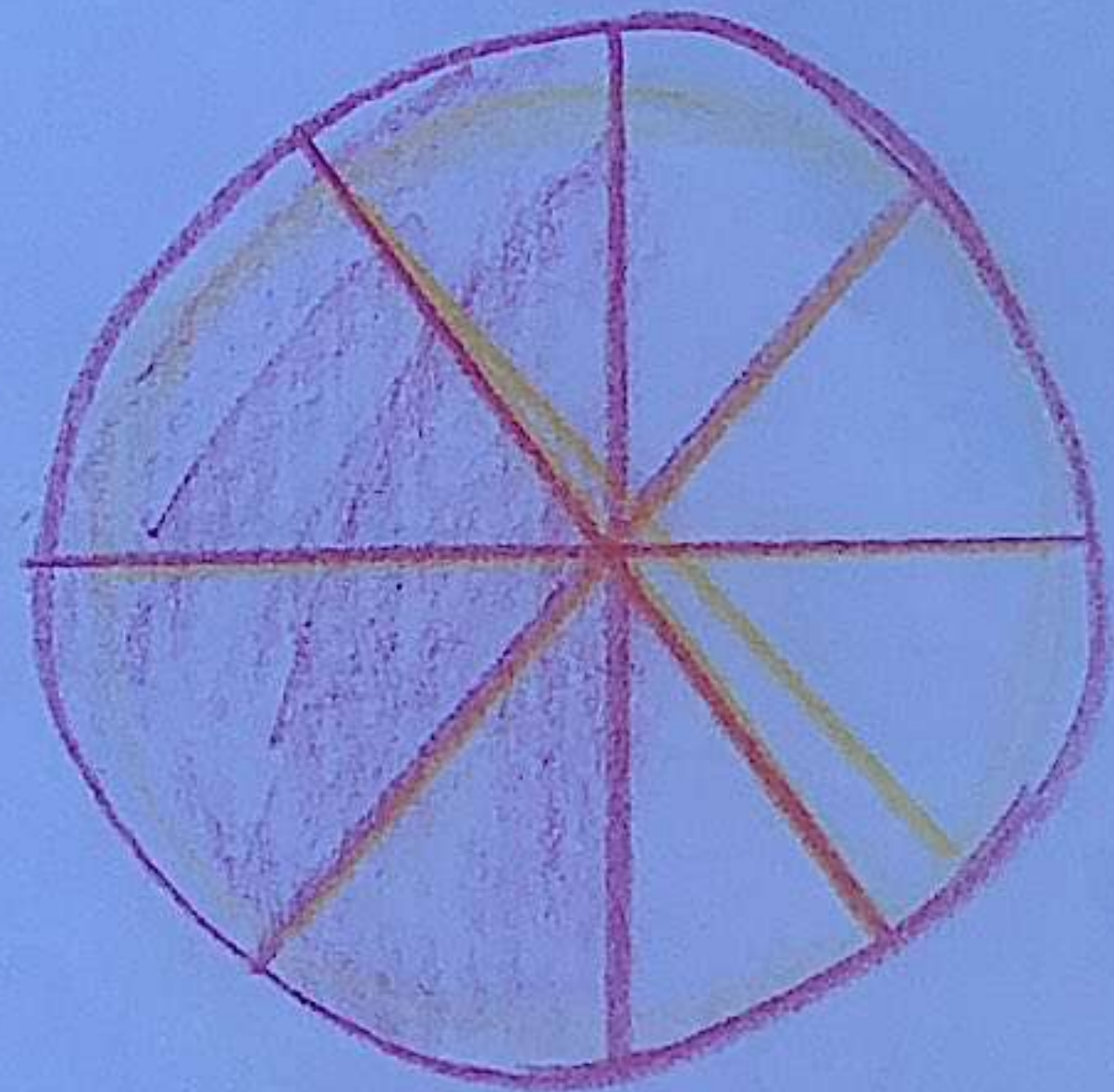
Tomamos 1 de 2

$\frac{1}{2}$



Tomamos 2 de 4

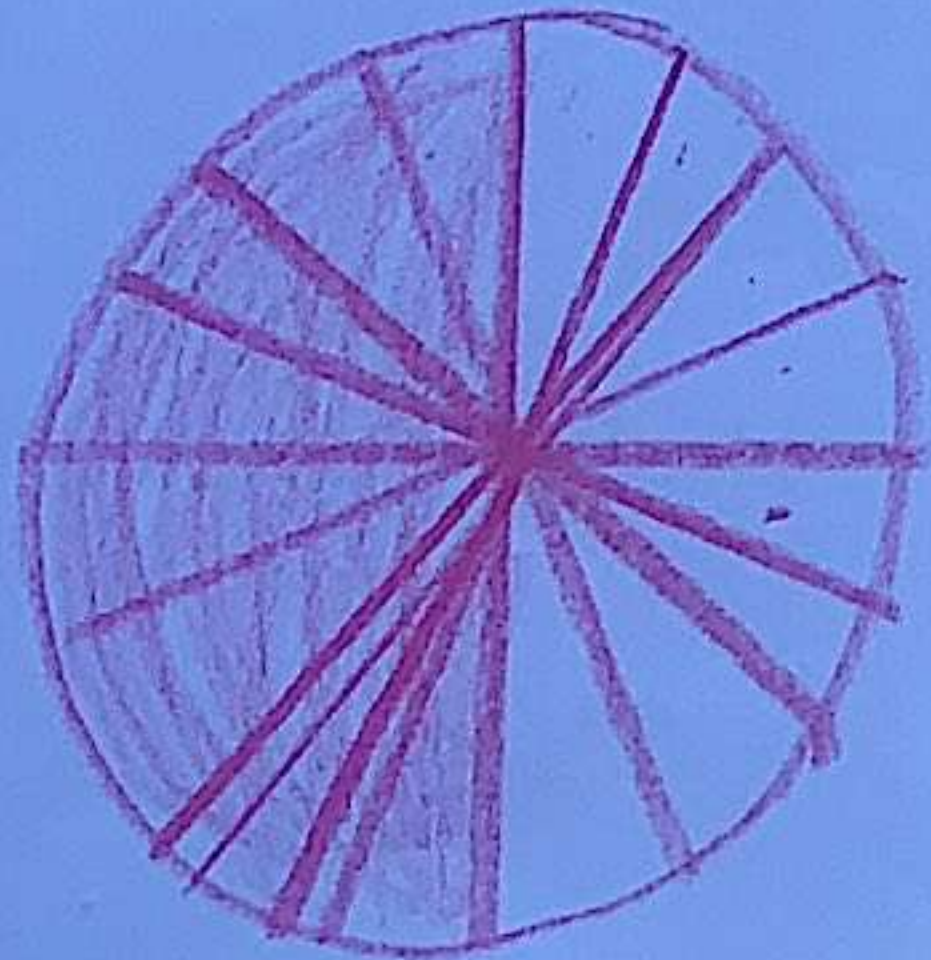
$\frac{2}{4}$



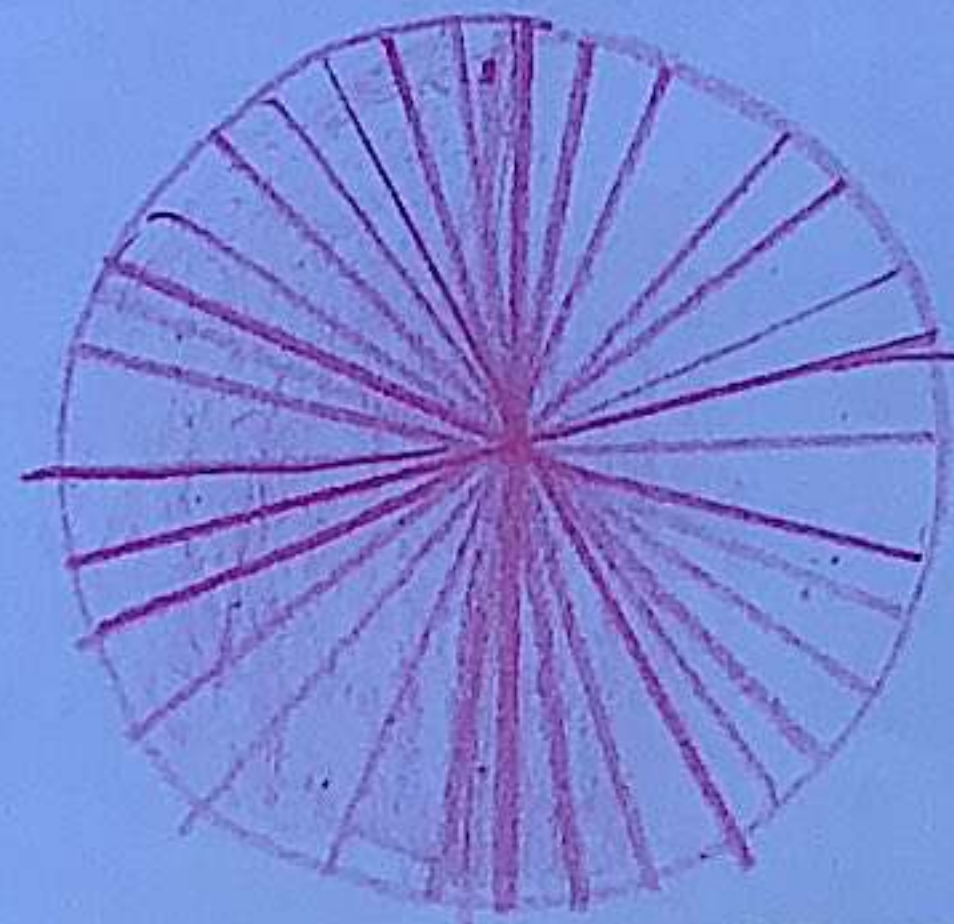
Tomamos 4 de 8

$\frac{4}{8}$

Tomamos 8 de 16



$\frac{8}{16}$

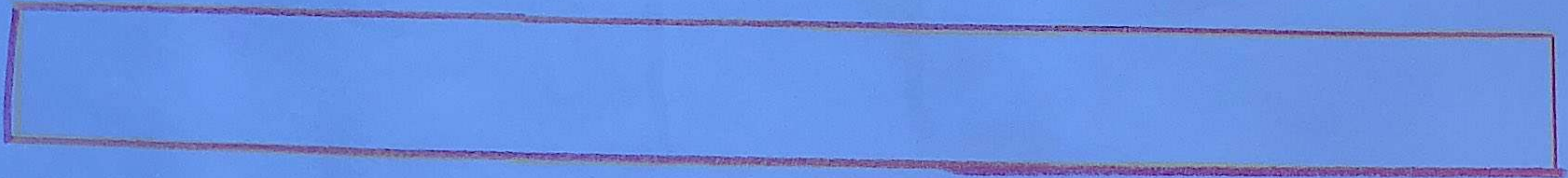
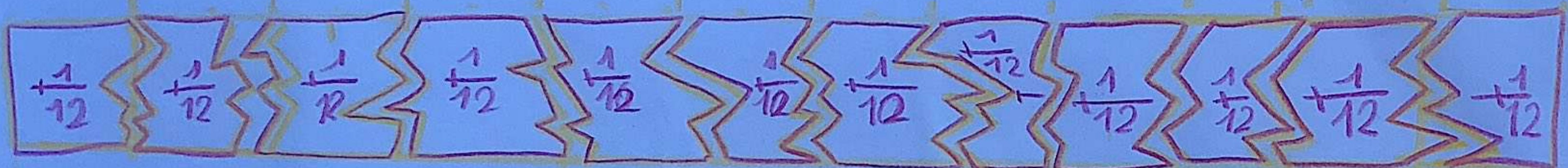


$\frac{16}{32}$

Tomamos 16 de 32

23-1-14

La UNIDAD se quie-
bra

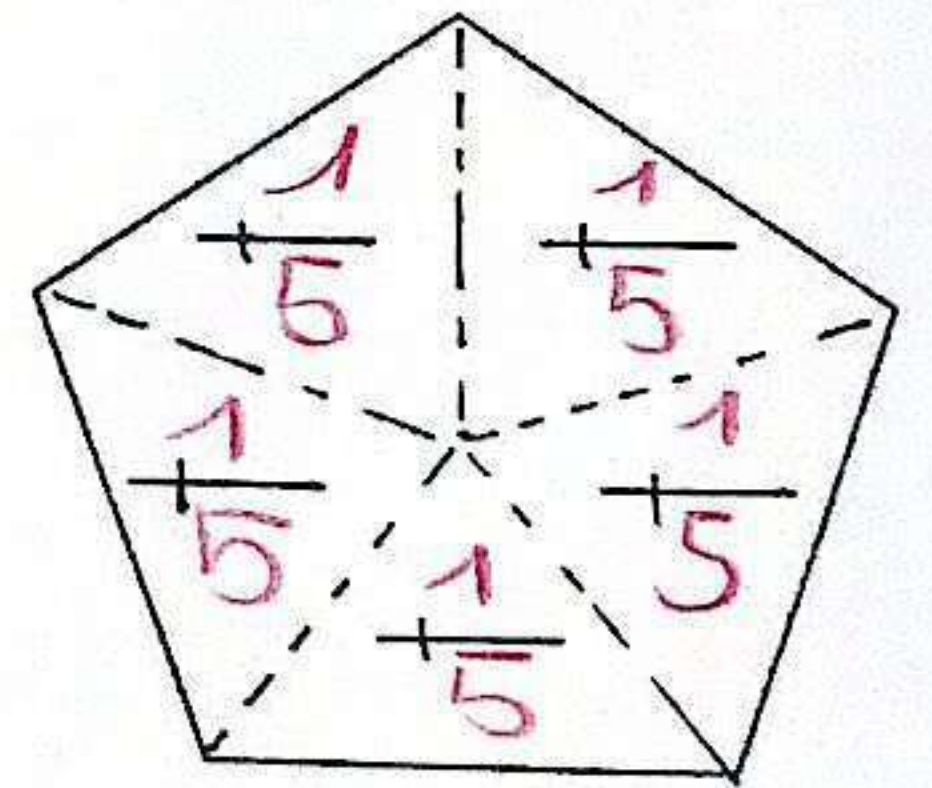
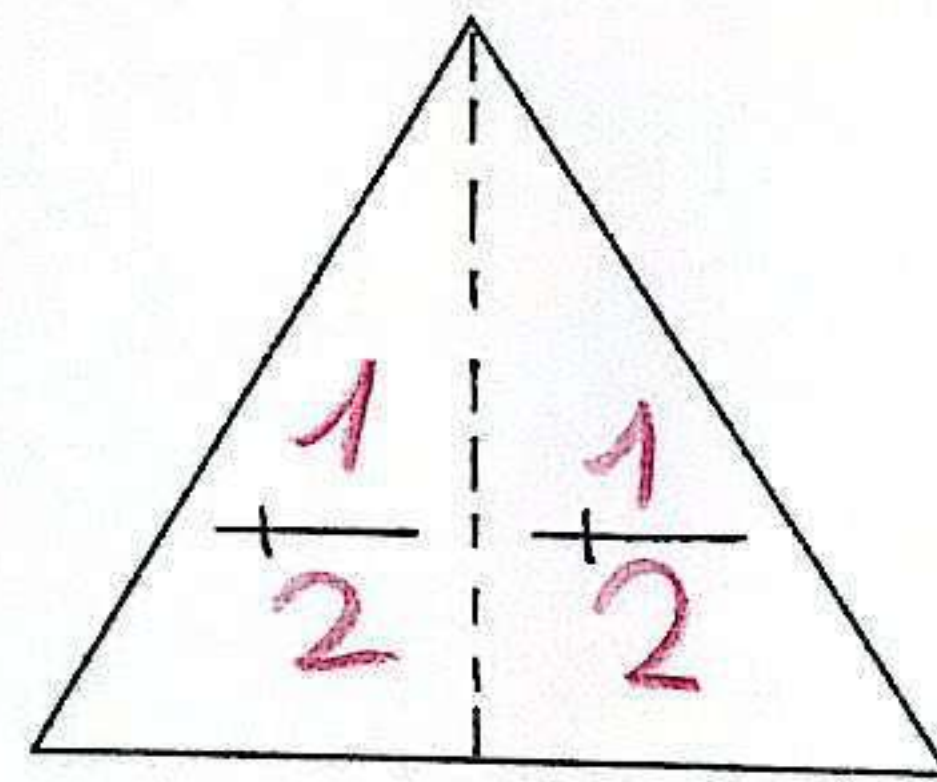
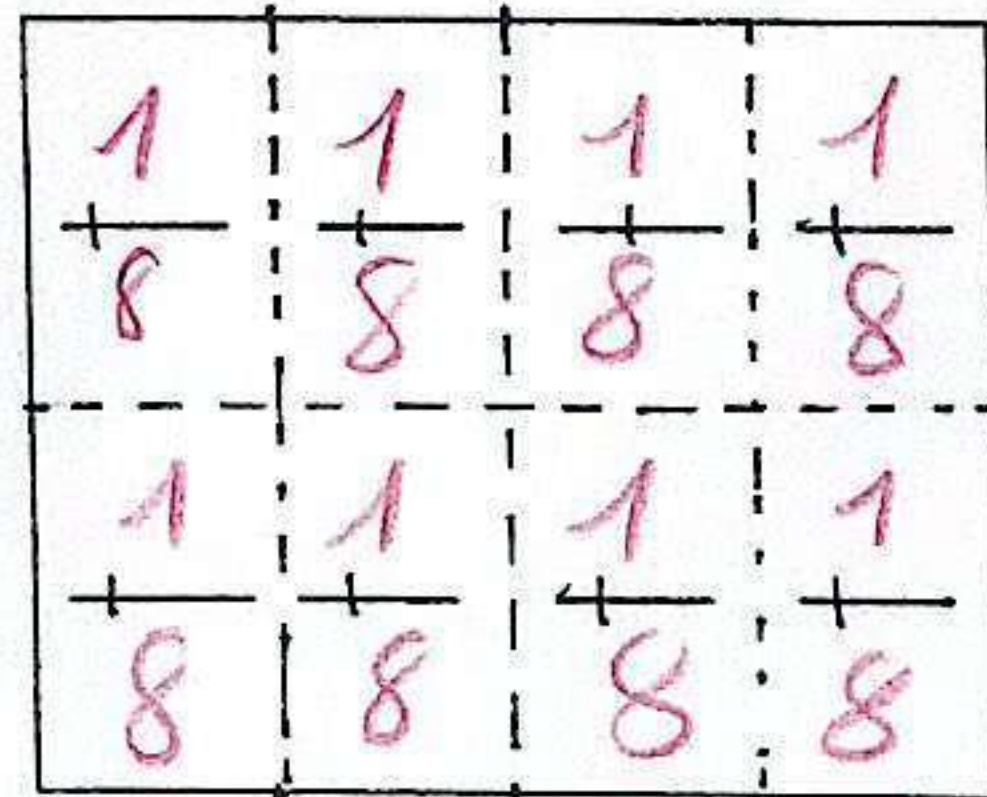
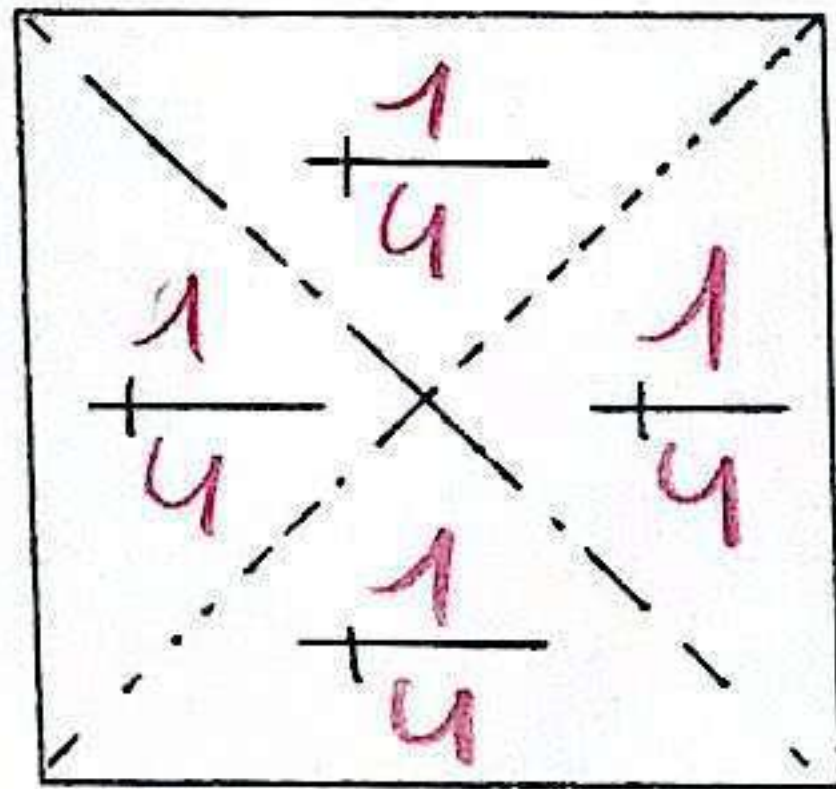
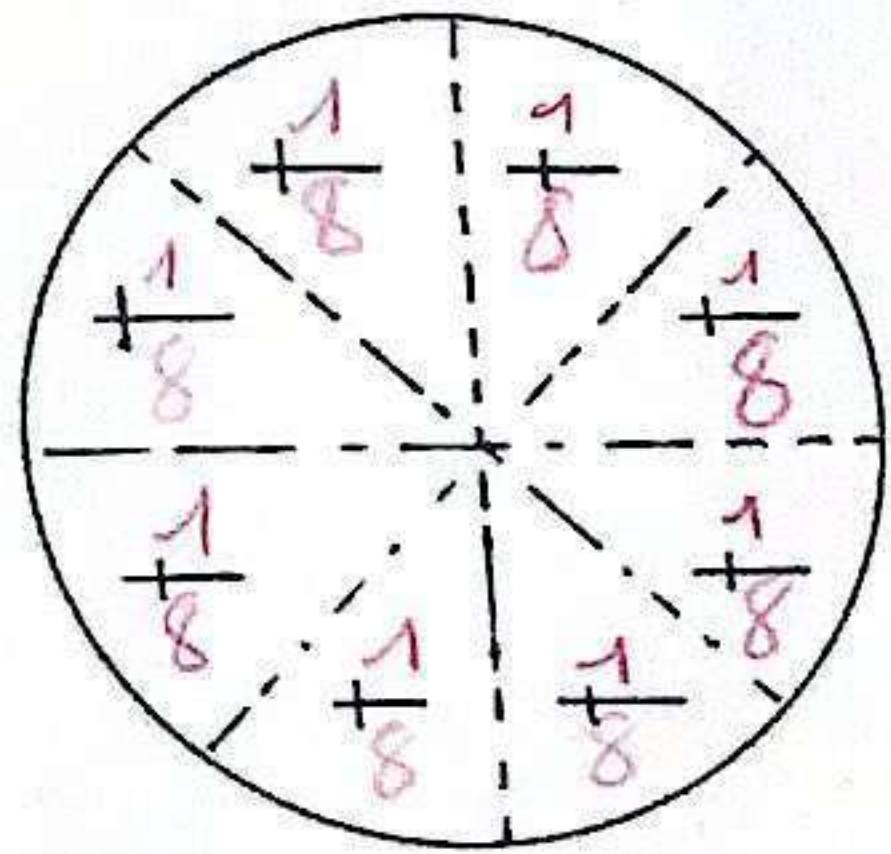
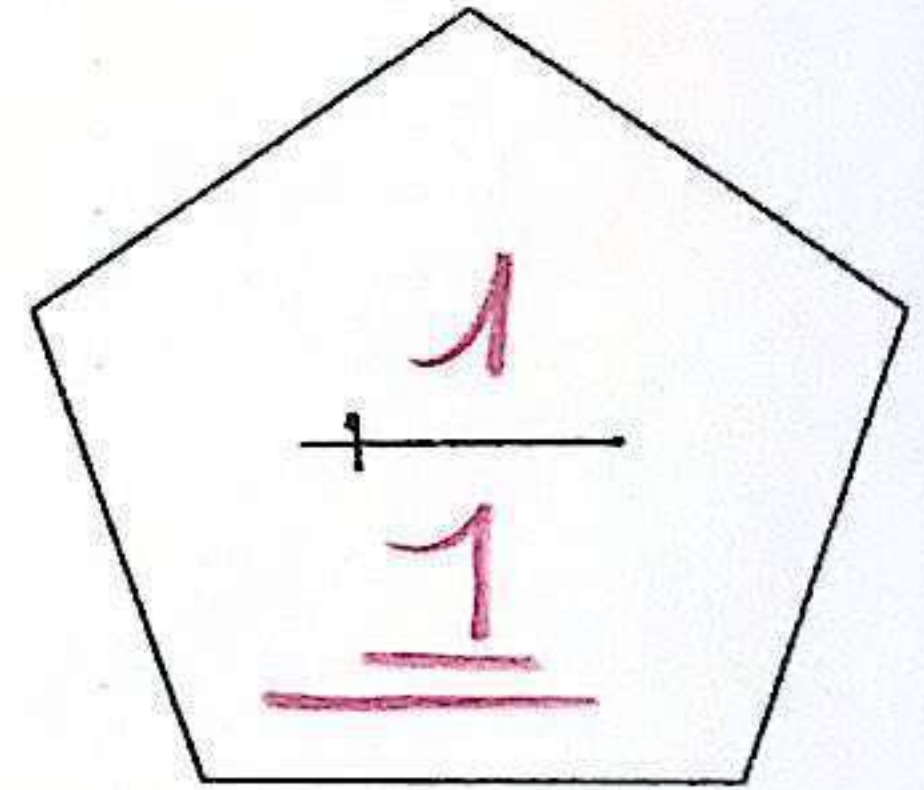
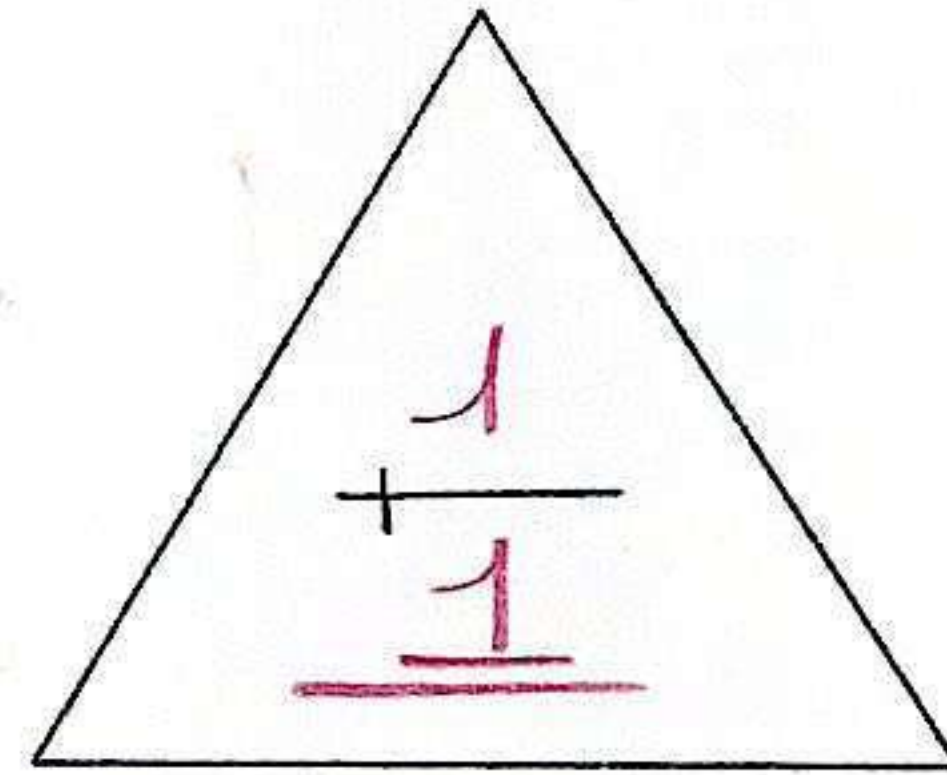
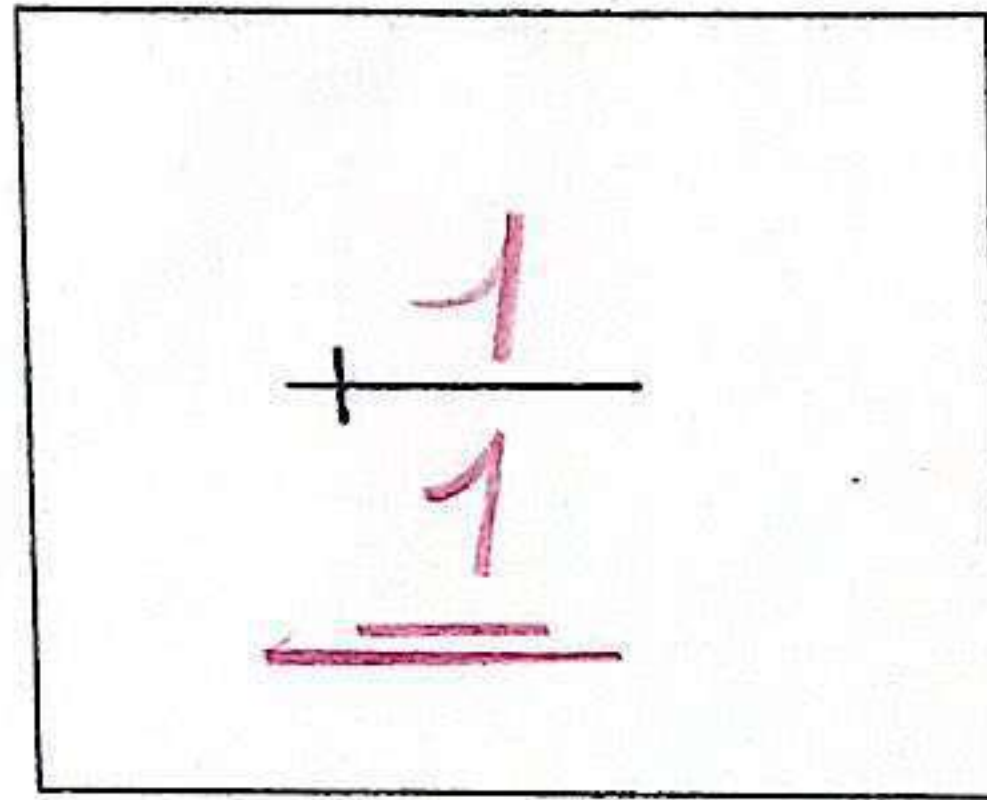
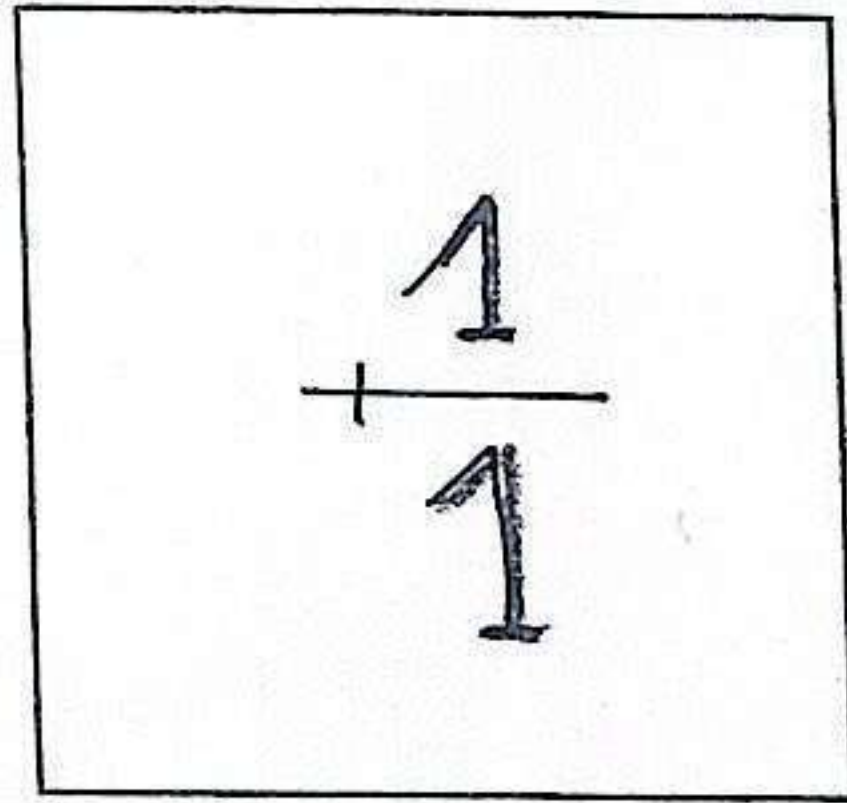
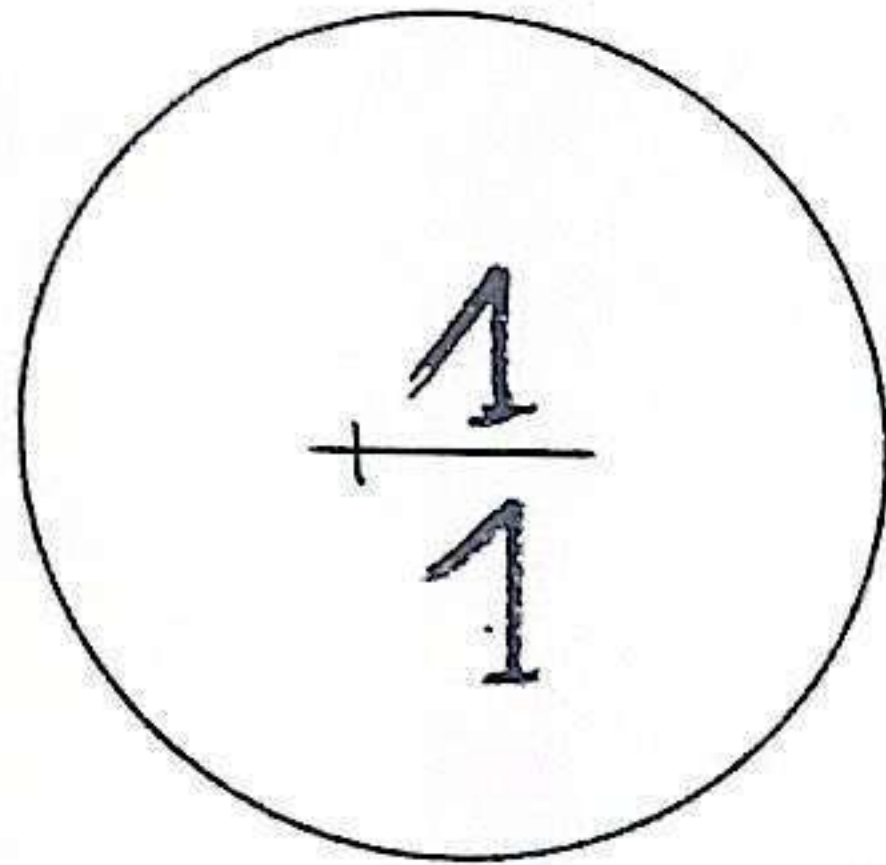


1

EL TOTAL = LA UNIDAD = EL ENTERO

Violeta

$$1 = \frac{1}{1}$$



$$\frac{8}{8}$$

$$\frac{4}{4}$$

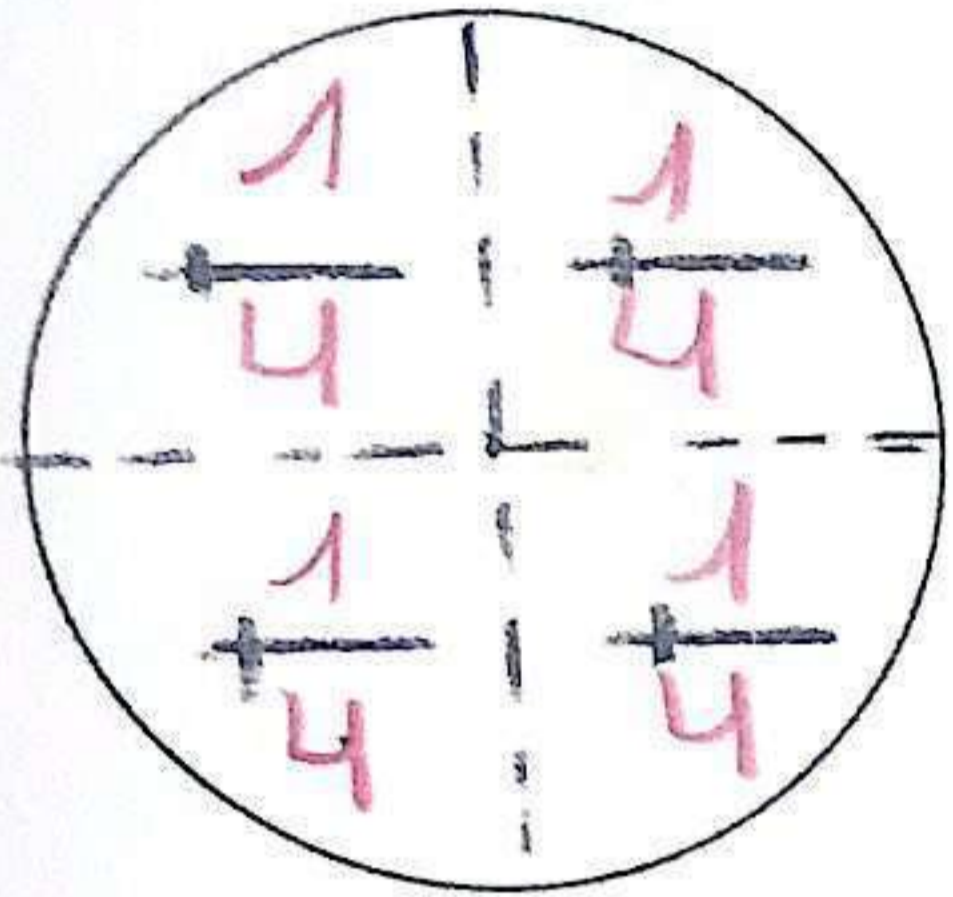
$$\frac{8}{8}$$

$$\frac{2}{2}$$

$$\frac{5}{5}$$

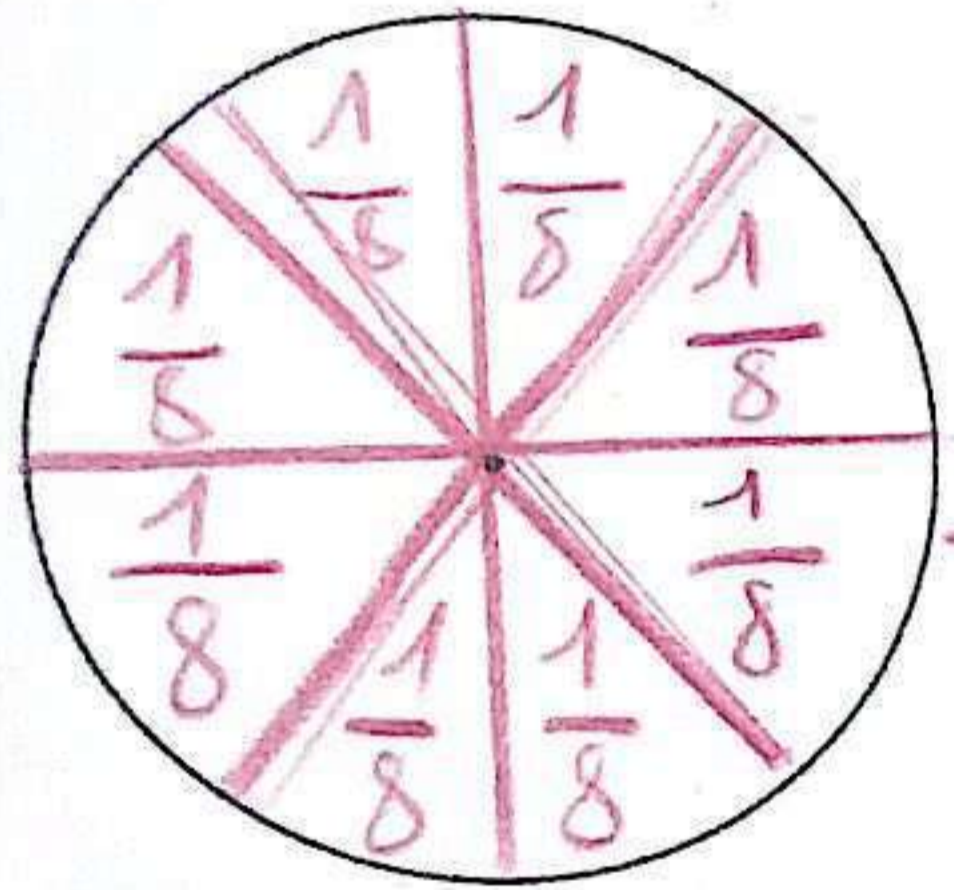
EL ENTERO Y LA PARTES O QUEBRADOS

Violeta



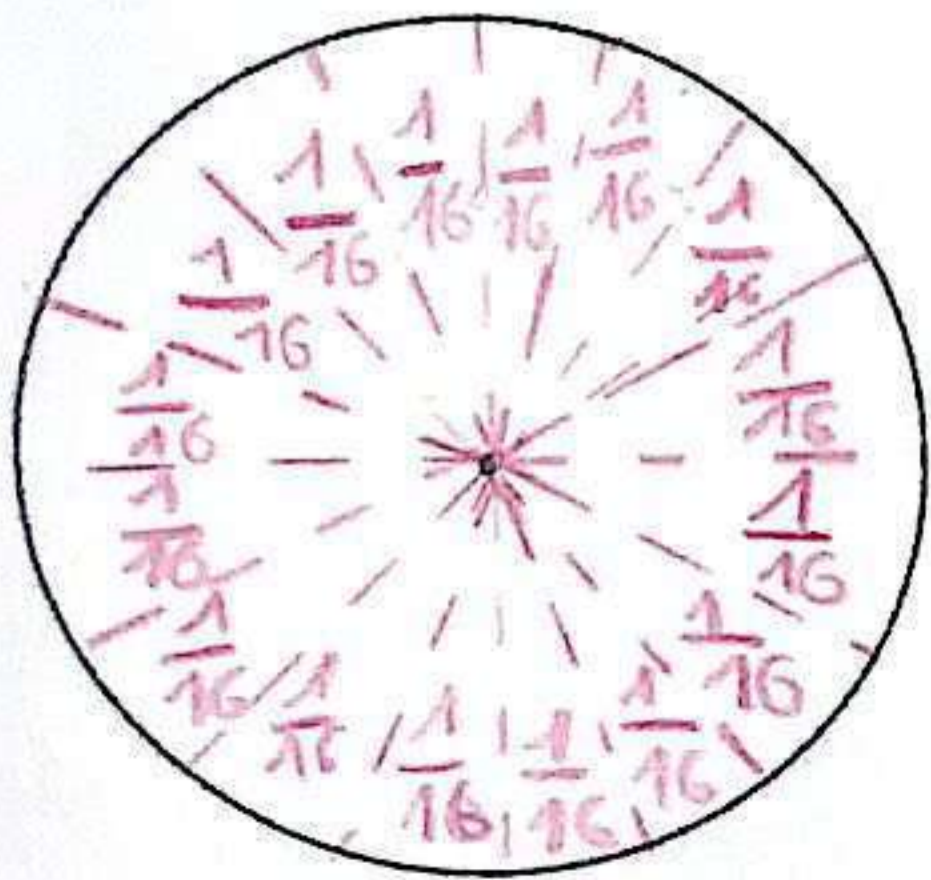
$$\frac{4}{4} = \frac{1}{4} + \frac{1}{4} + \frac{2}{4} + \frac{0}{4} ; \frac{4}{4} = \frac{2}{4} + \frac{1}{4} + \frac{1}{4} ; \frac{4}{4} = \frac{1}{4} + \frac{3}{4}$$

$$\frac{4}{4} = \frac{0}{4} + \frac{4}{4} ;$$



$$\frac{8}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} ; \frac{8}{8} = \frac{4}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$$

$$\frac{8}{8} = \frac{5}{8} + \frac{2}{8} + \frac{1}{8} ; \frac{8}{8} = \frac{6}{8} + \frac{2}{8} ; \frac{8}{8} = \frac{2}{8} + \frac{2}{8} + \frac{3}{8} + \frac{1}{8}$$



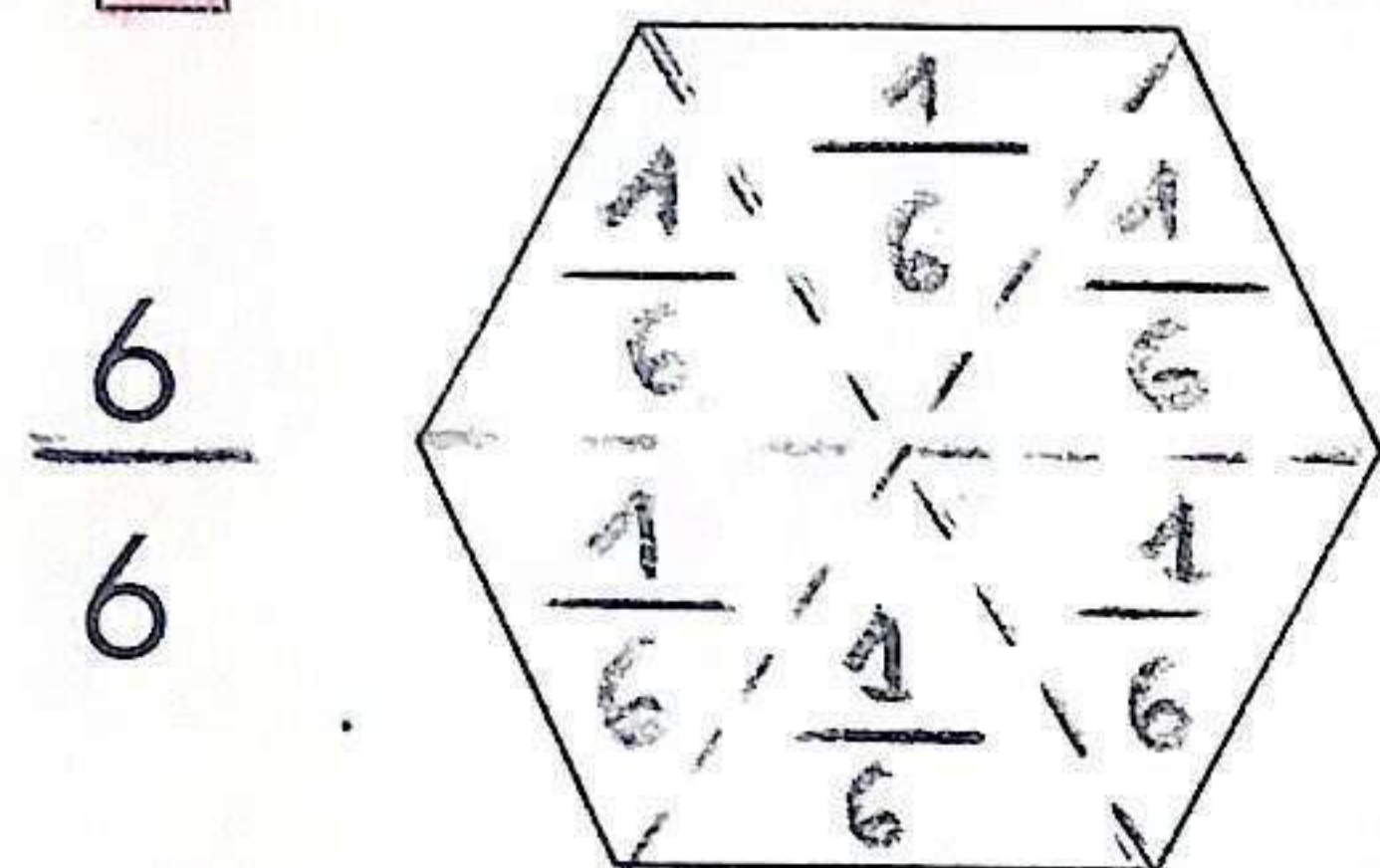
$$\frac{16}{16} = \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{1}{16}$$

$$\frac{16}{16} = \frac{2}{16} + \frac{2}{16} + \frac{2}{16} + \frac{2}{16} + \frac{2}{16} + \frac{3}{16} + \frac{1}{16} ; \frac{16}{16} = \frac{4}{16} + \frac{4}{16} + \frac{2}{16} + \frac{6}{16}$$

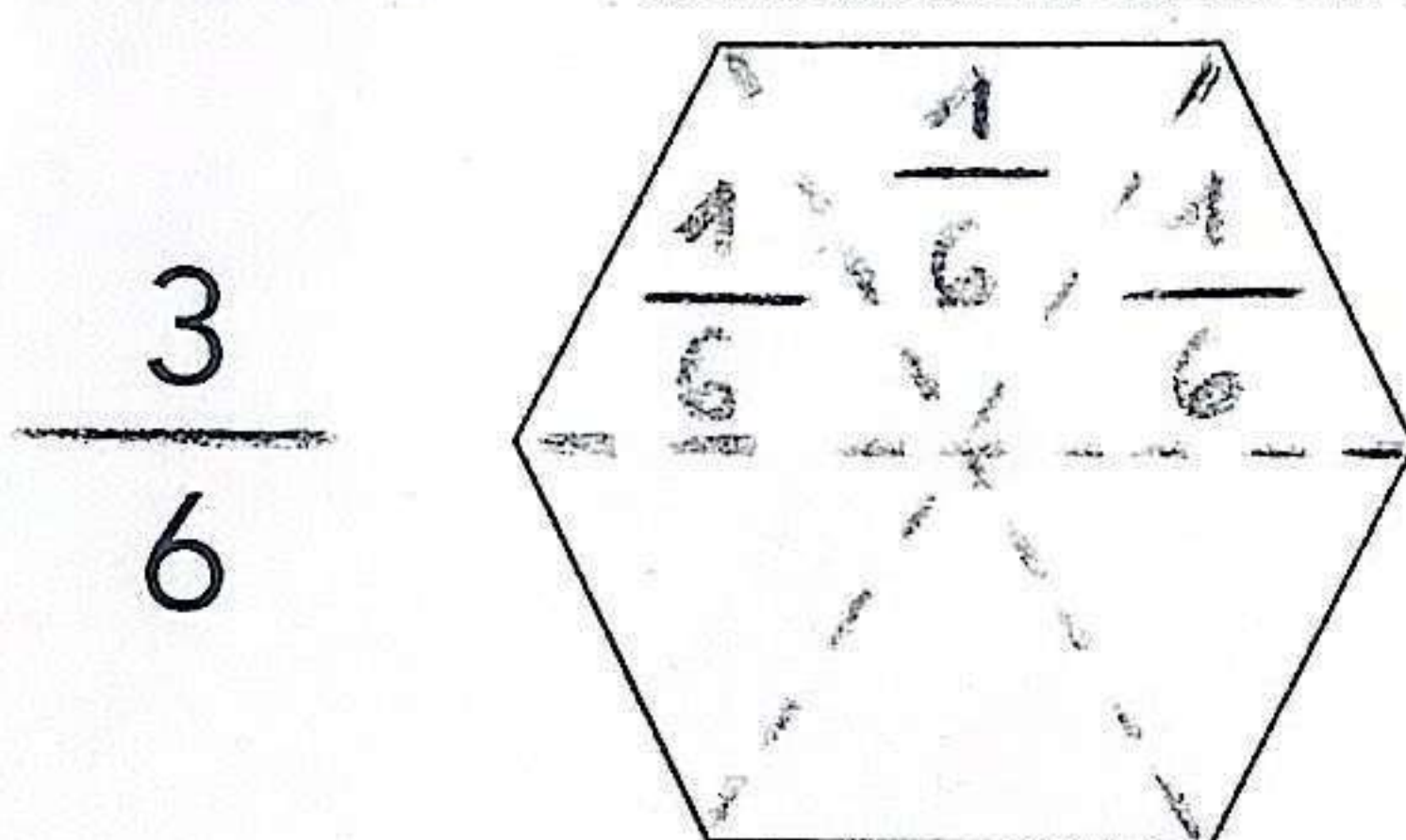
3

PARTE TROZOS IGUALES CON REGLA Y LINEAS DISCONTINUAS.

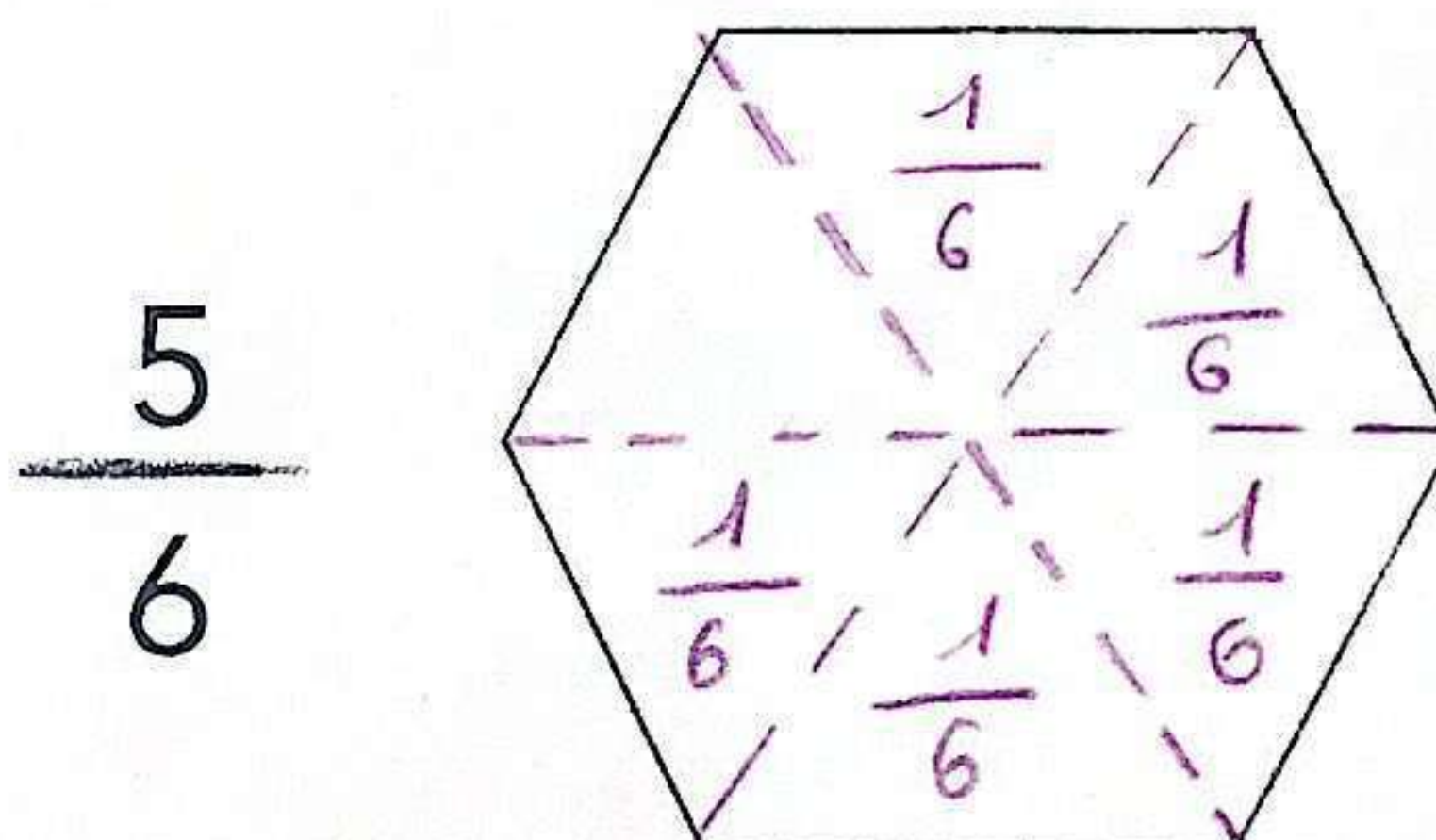
Violeta



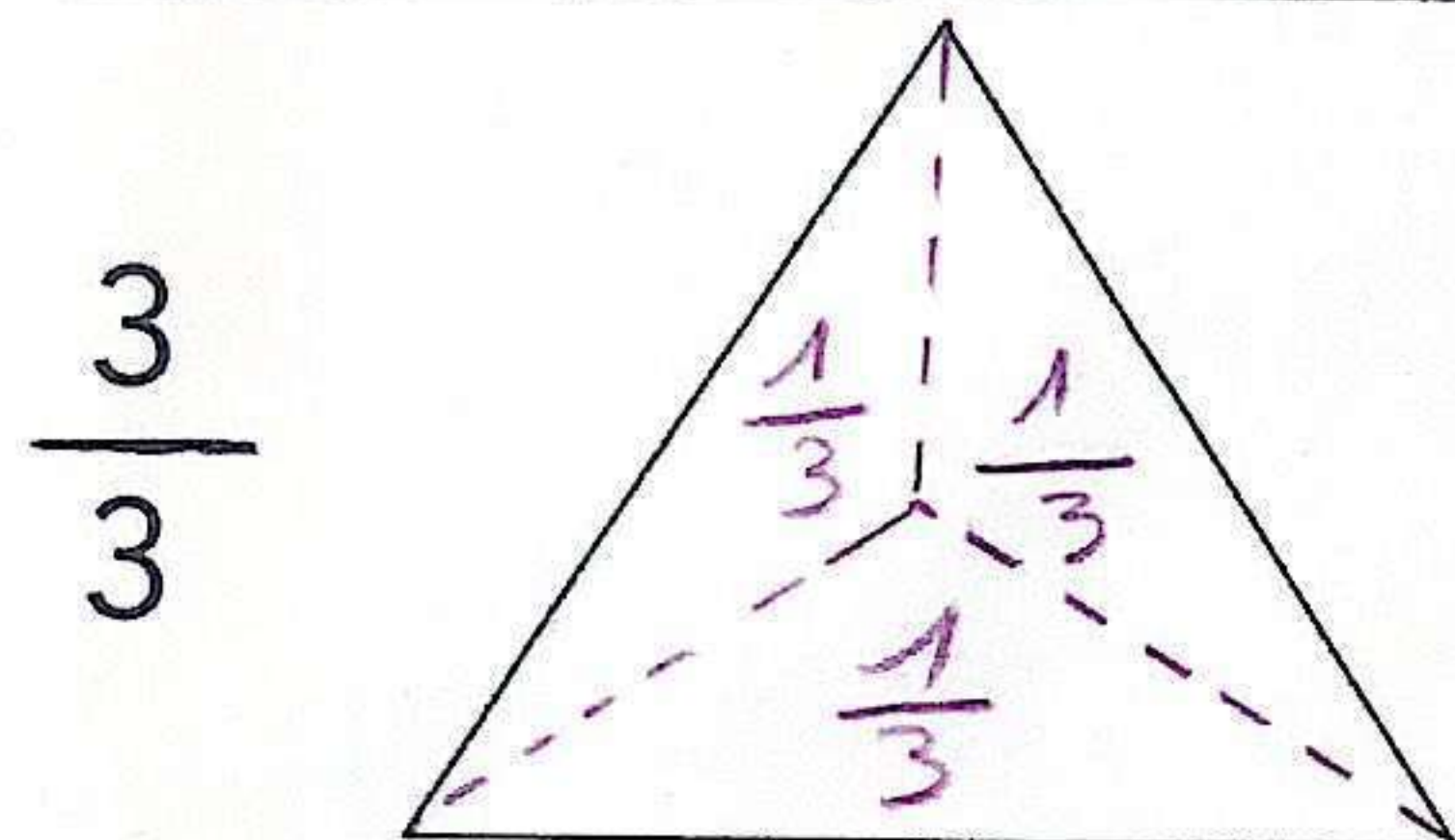
$$\frac{6}{6}$$



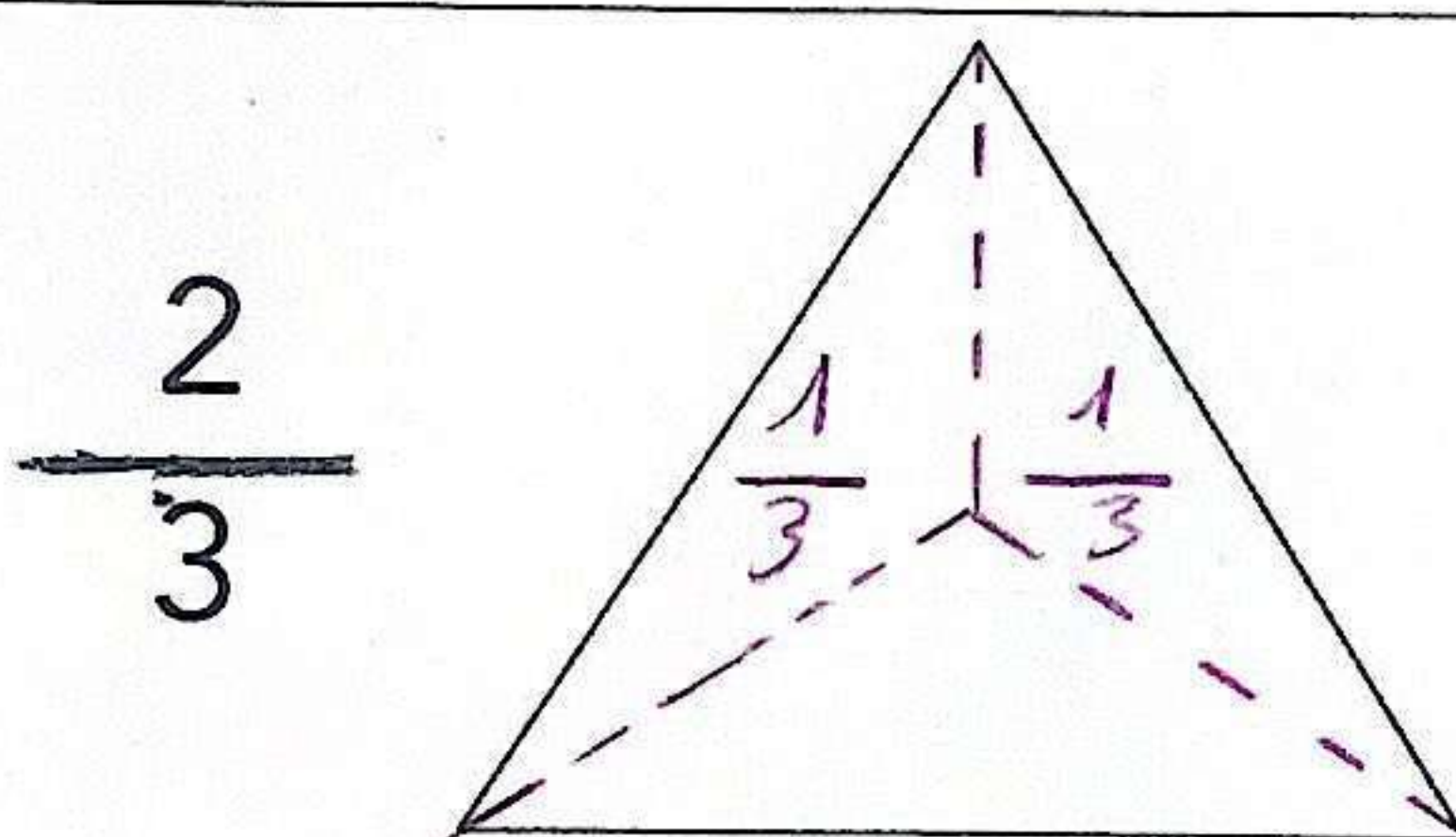
$$\frac{3}{6}$$



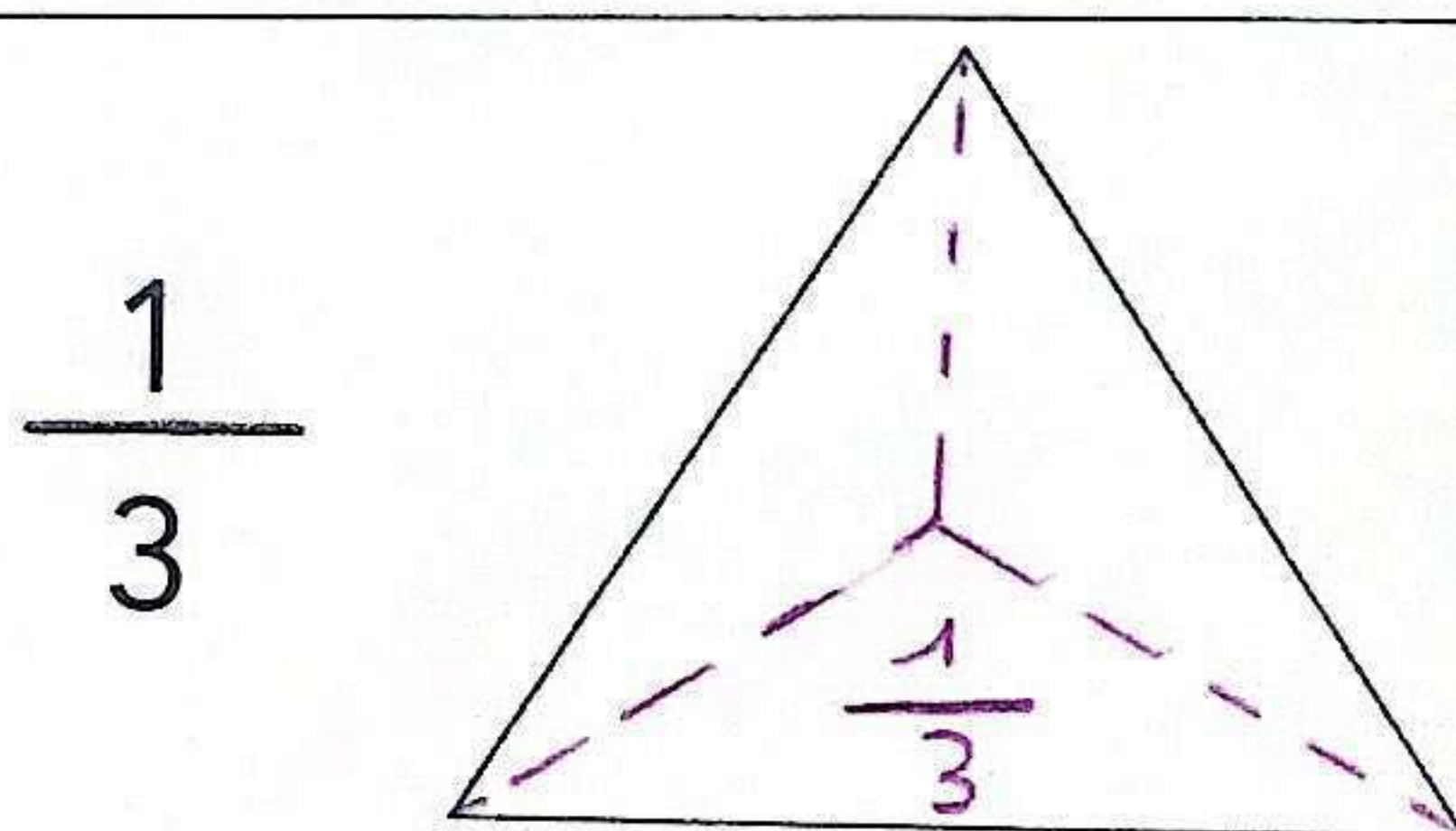
$$\frac{5}{6}$$



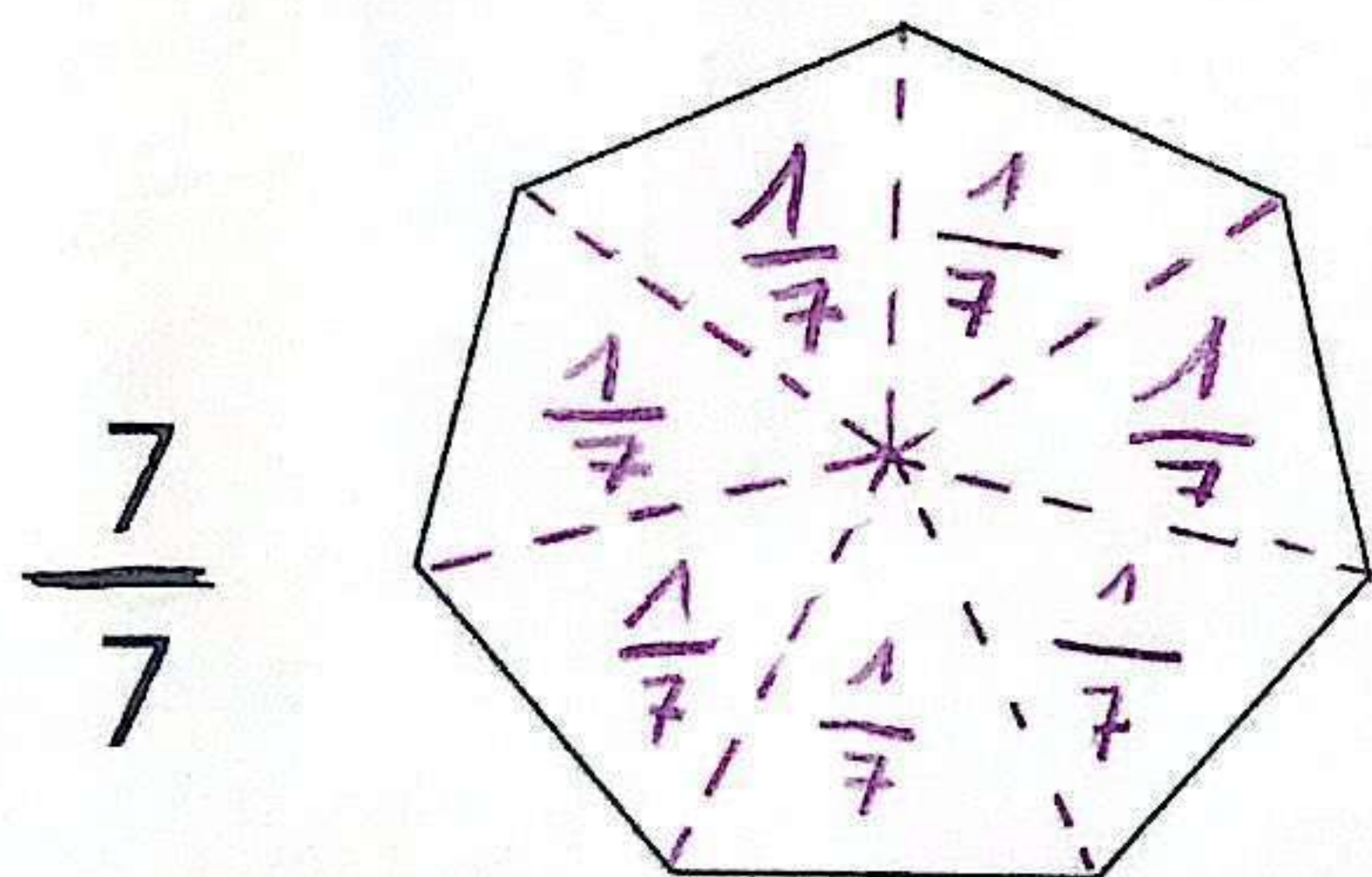
$$\frac{3}{3}$$



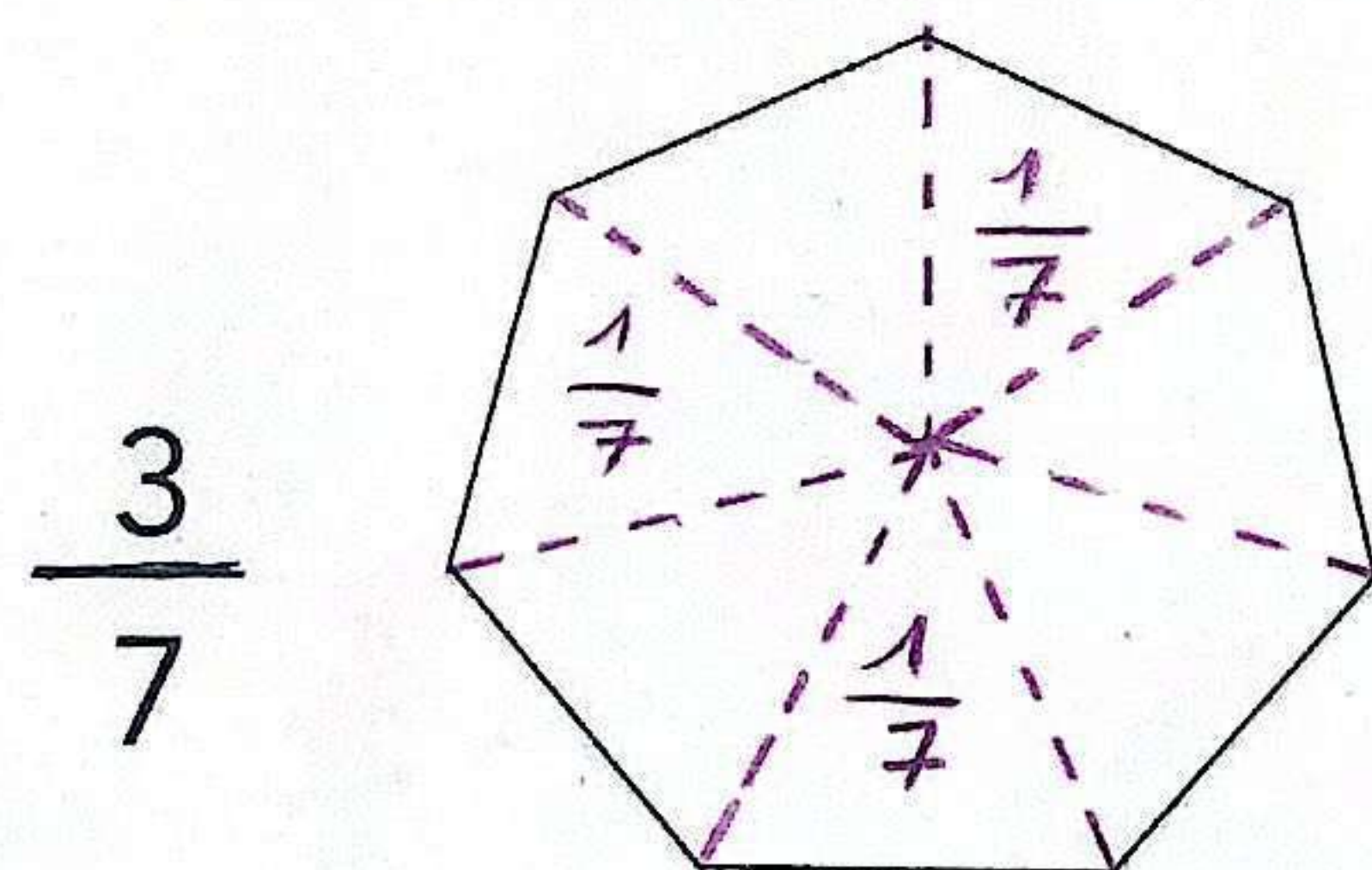
$$\frac{2}{3}$$



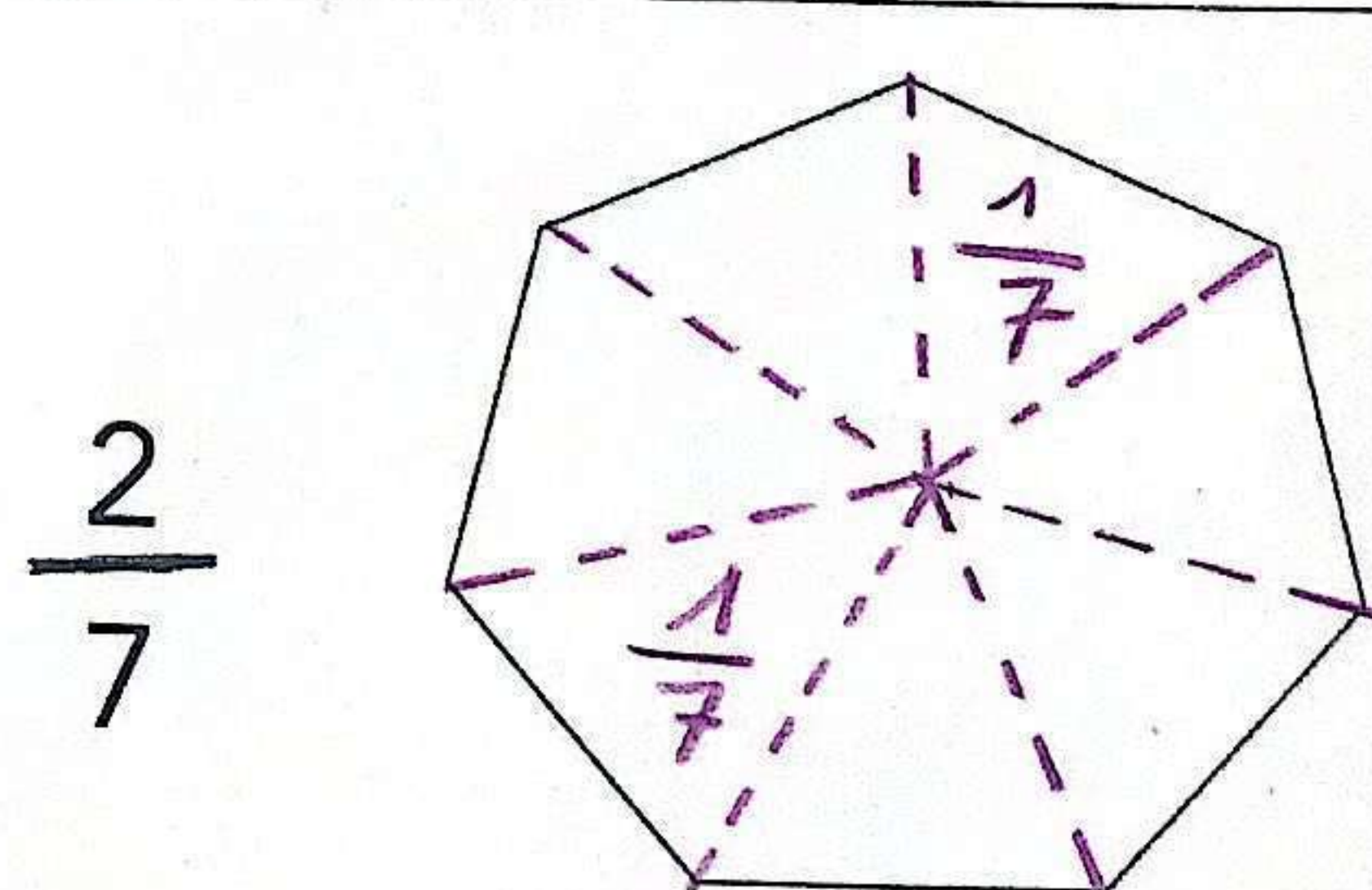
$$\frac{1}{3}$$



$$\frac{7}{7}$$



$$\frac{3}{7}$$



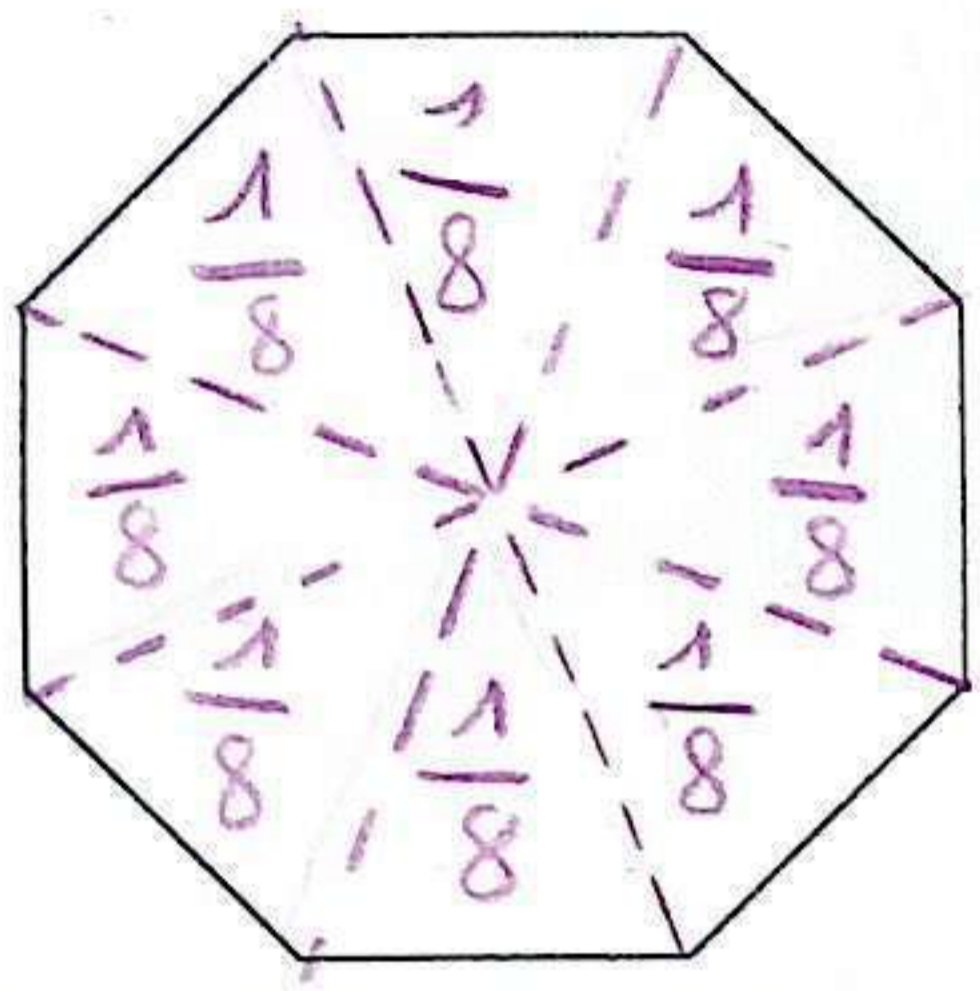
$$\frac{2}{7}$$

4

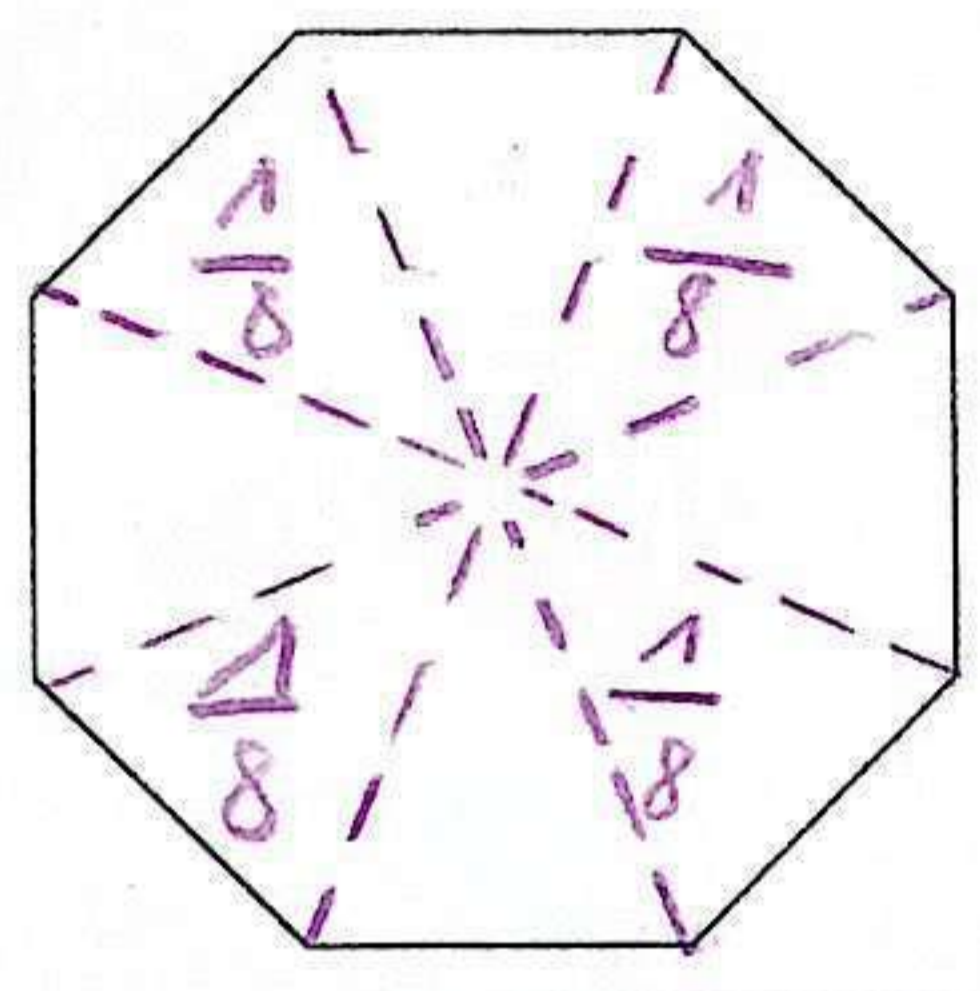
PARTE TROZOS IGUALES CON REGLA Y LINEAS DISCONTINUAS.

Violeta.

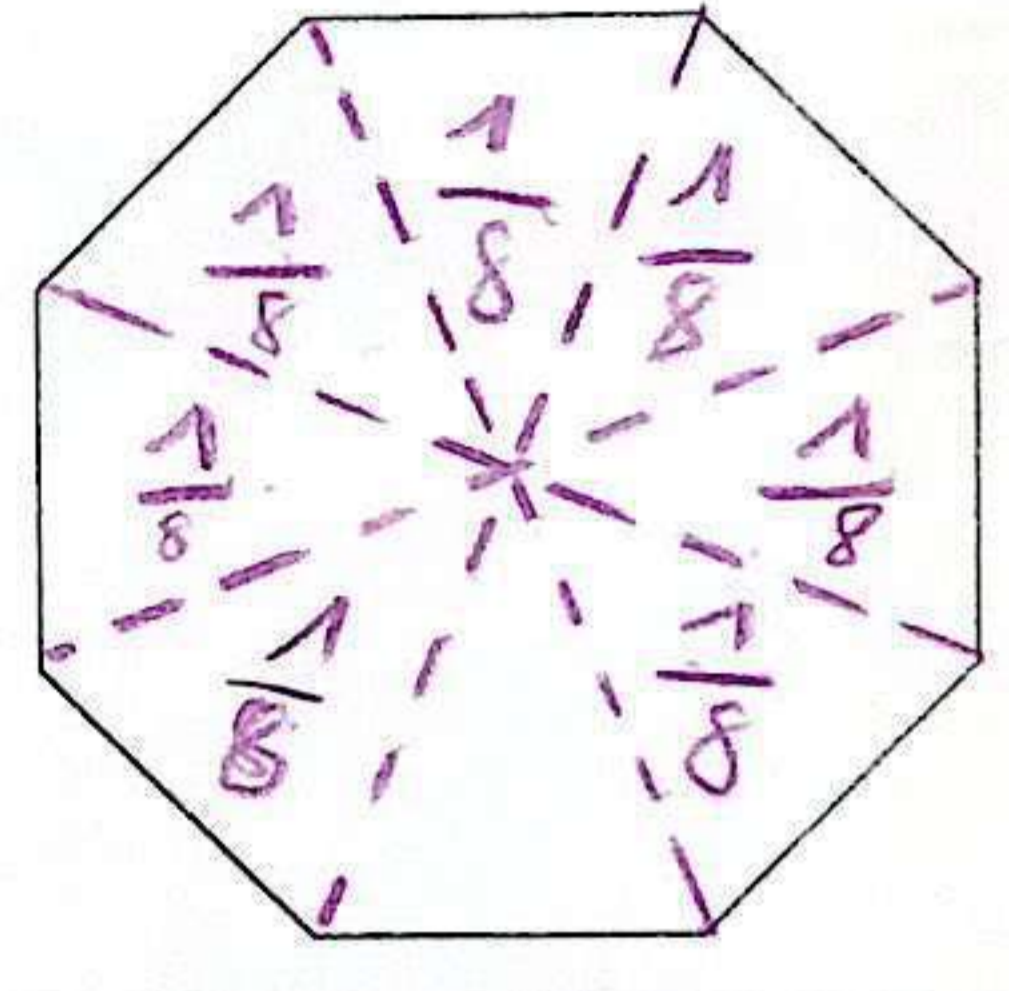
$$\frac{8}{8}$$



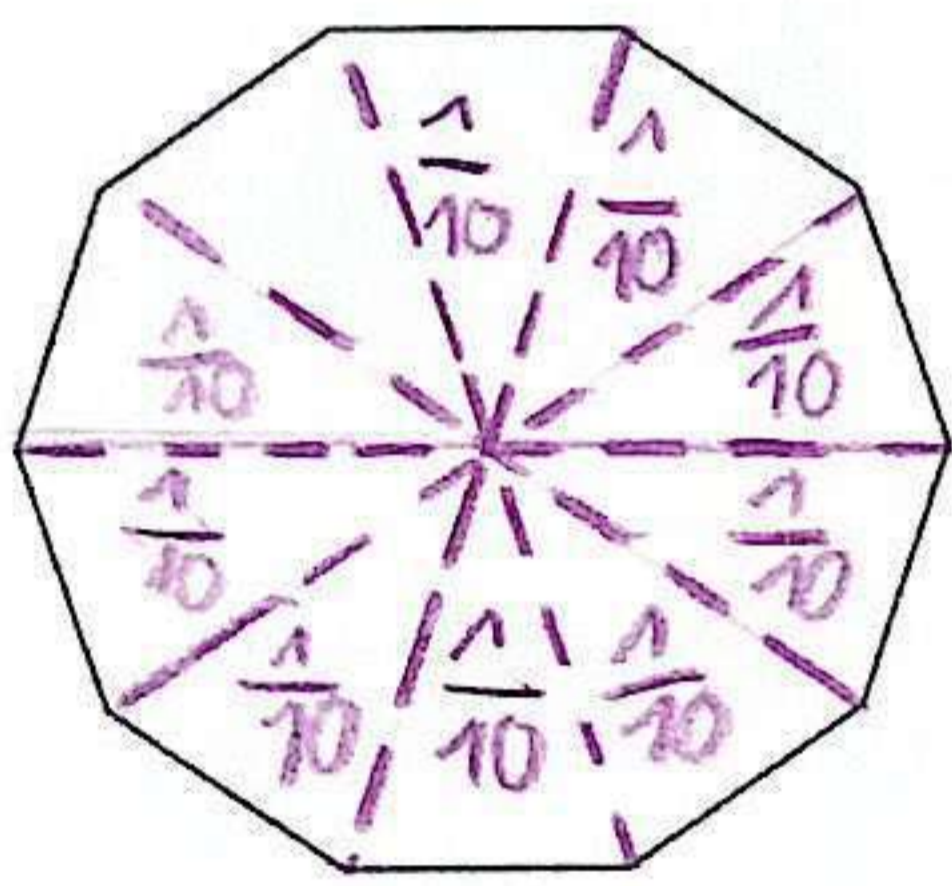
$$\frac{4}{8}$$



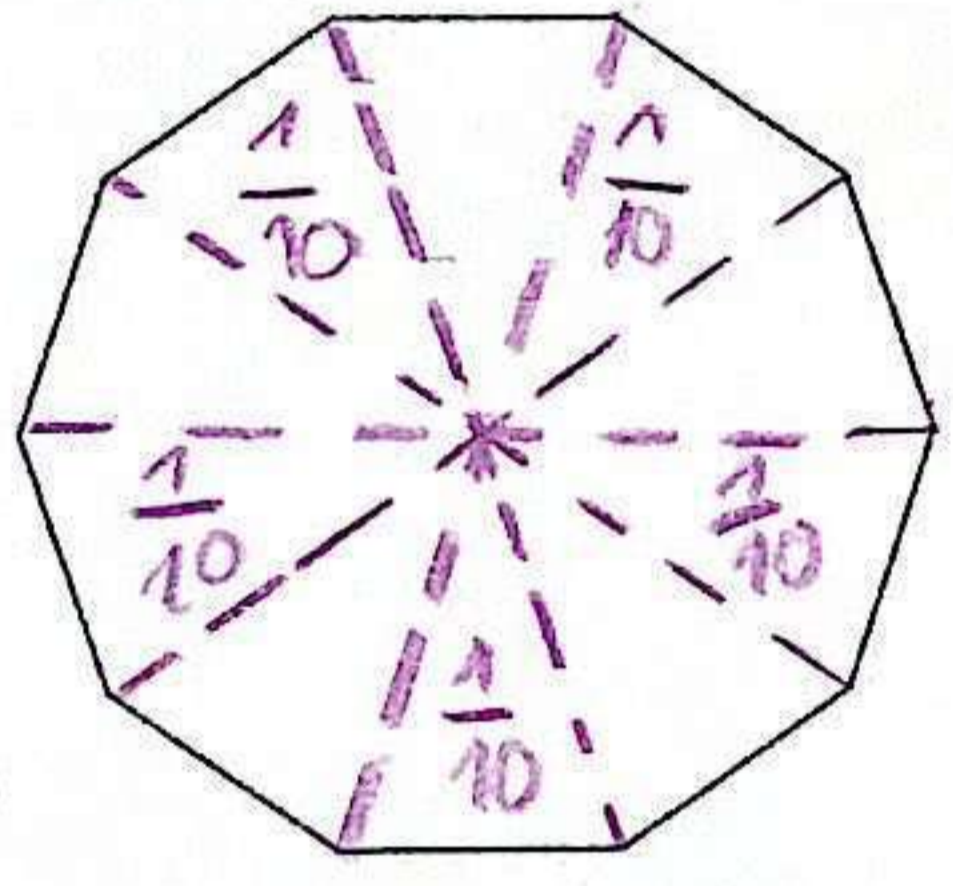
$$\frac{7}{8}$$



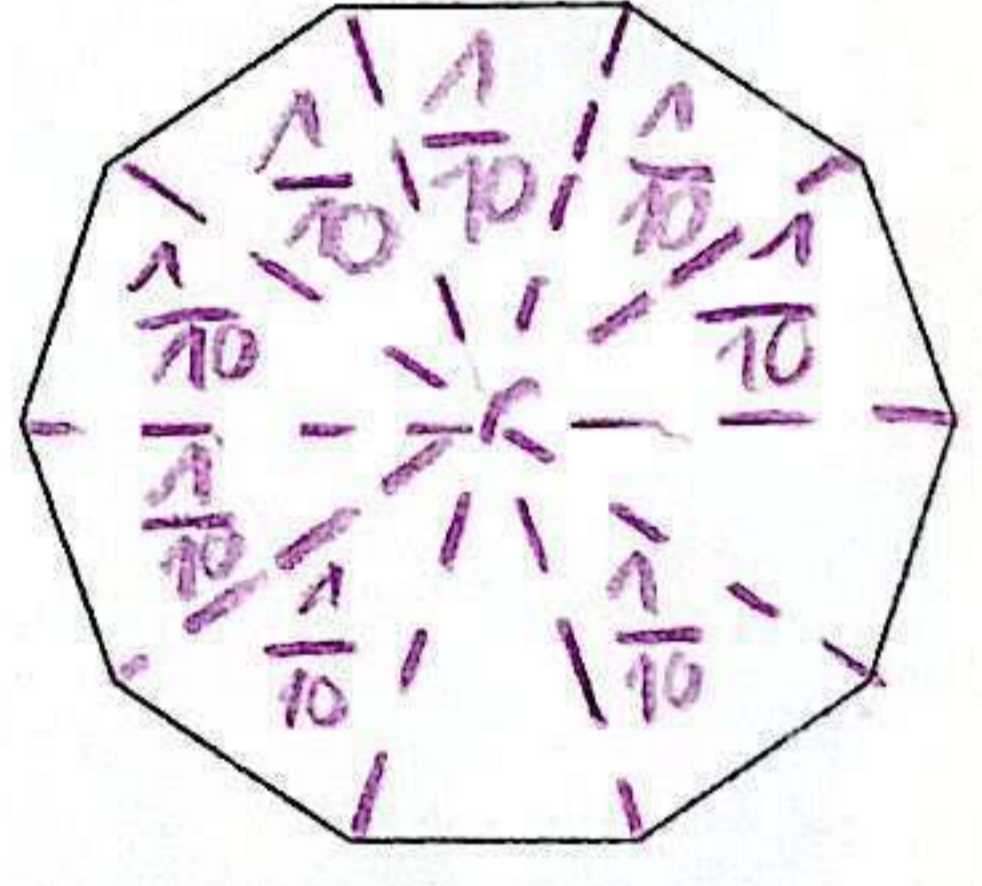
$$\frac{10}{10}$$



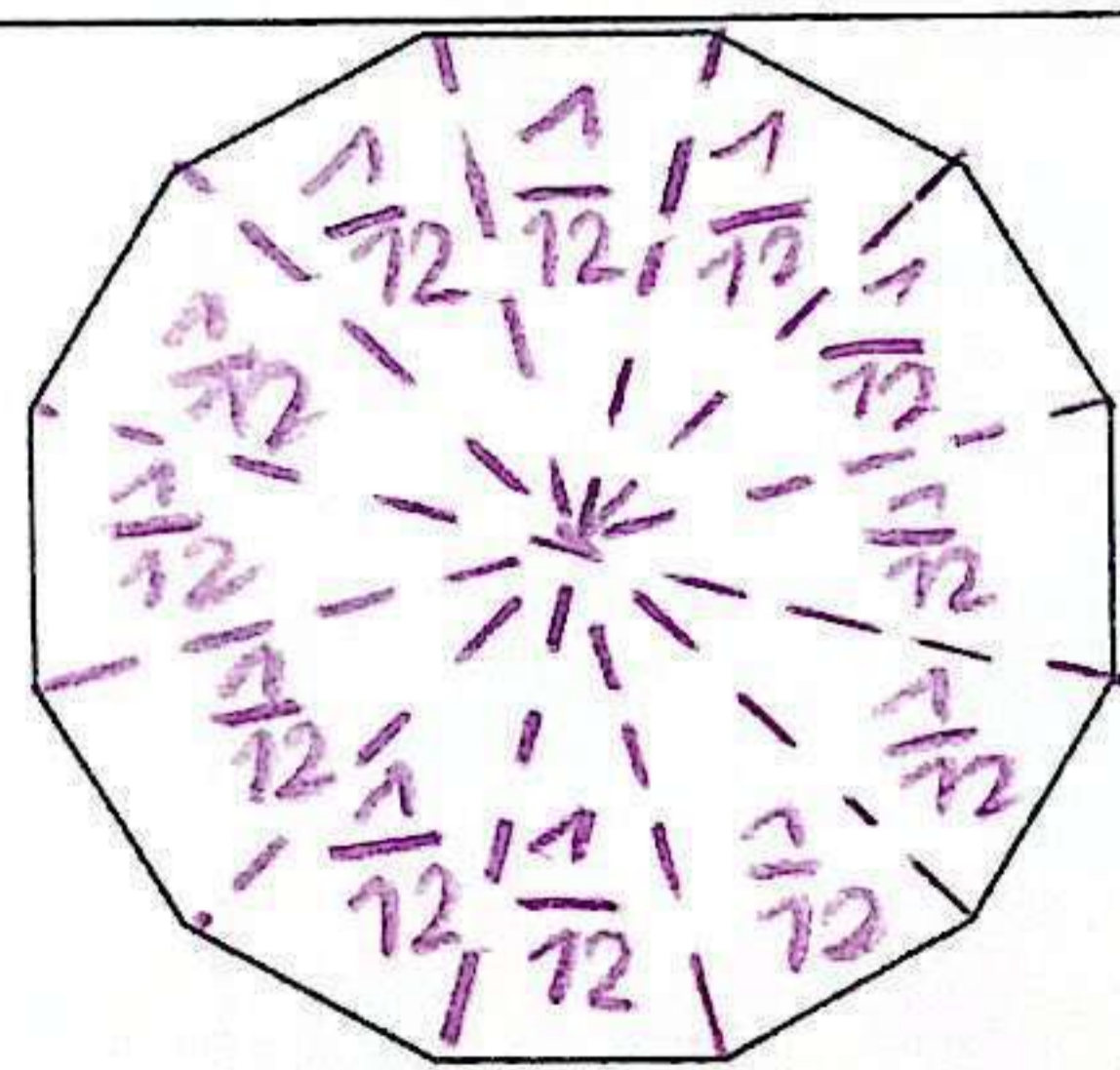
$$\frac{5}{10}$$



$$\frac{8}{10}$$

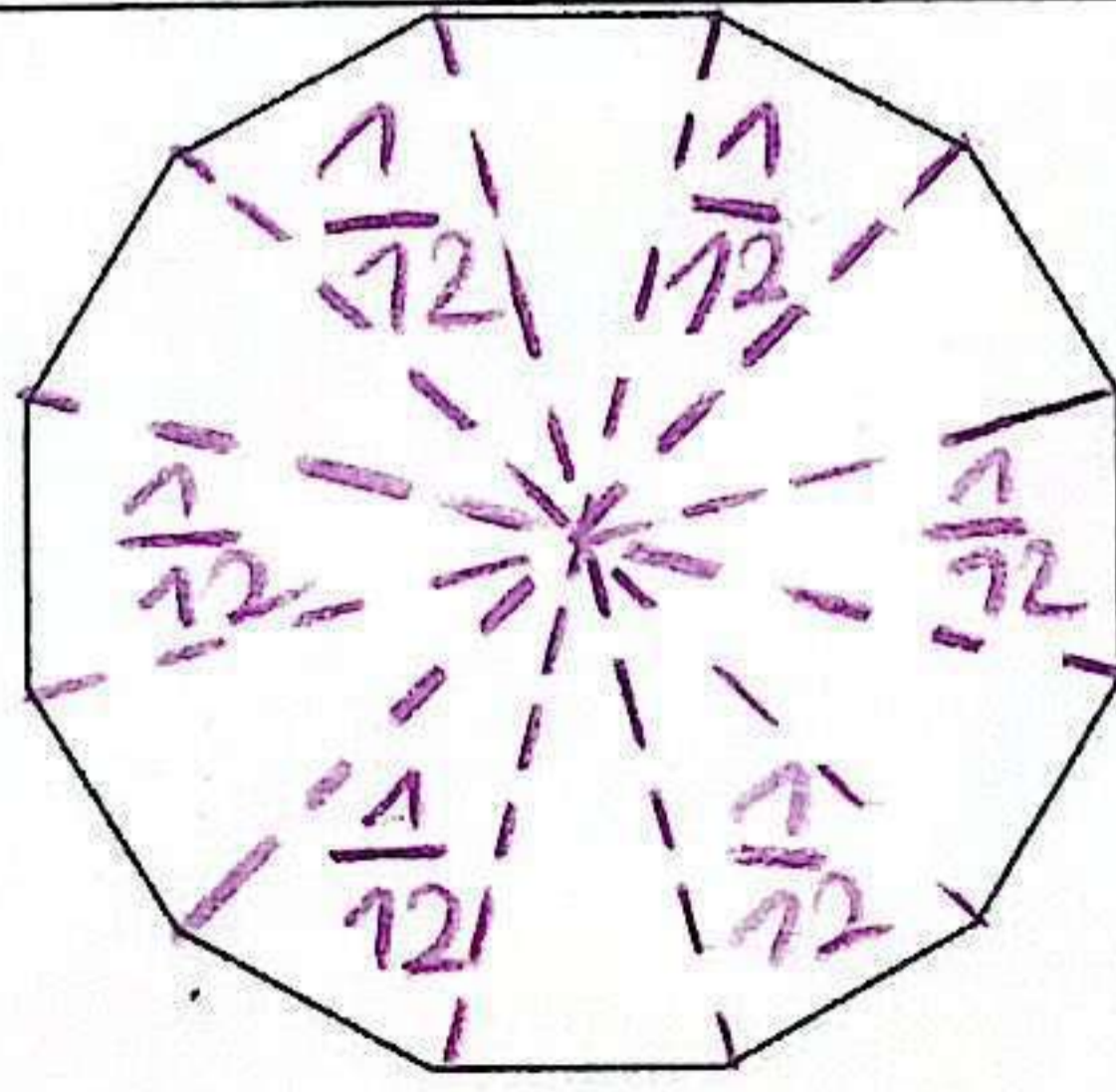


$$\frac{12}{12}$$

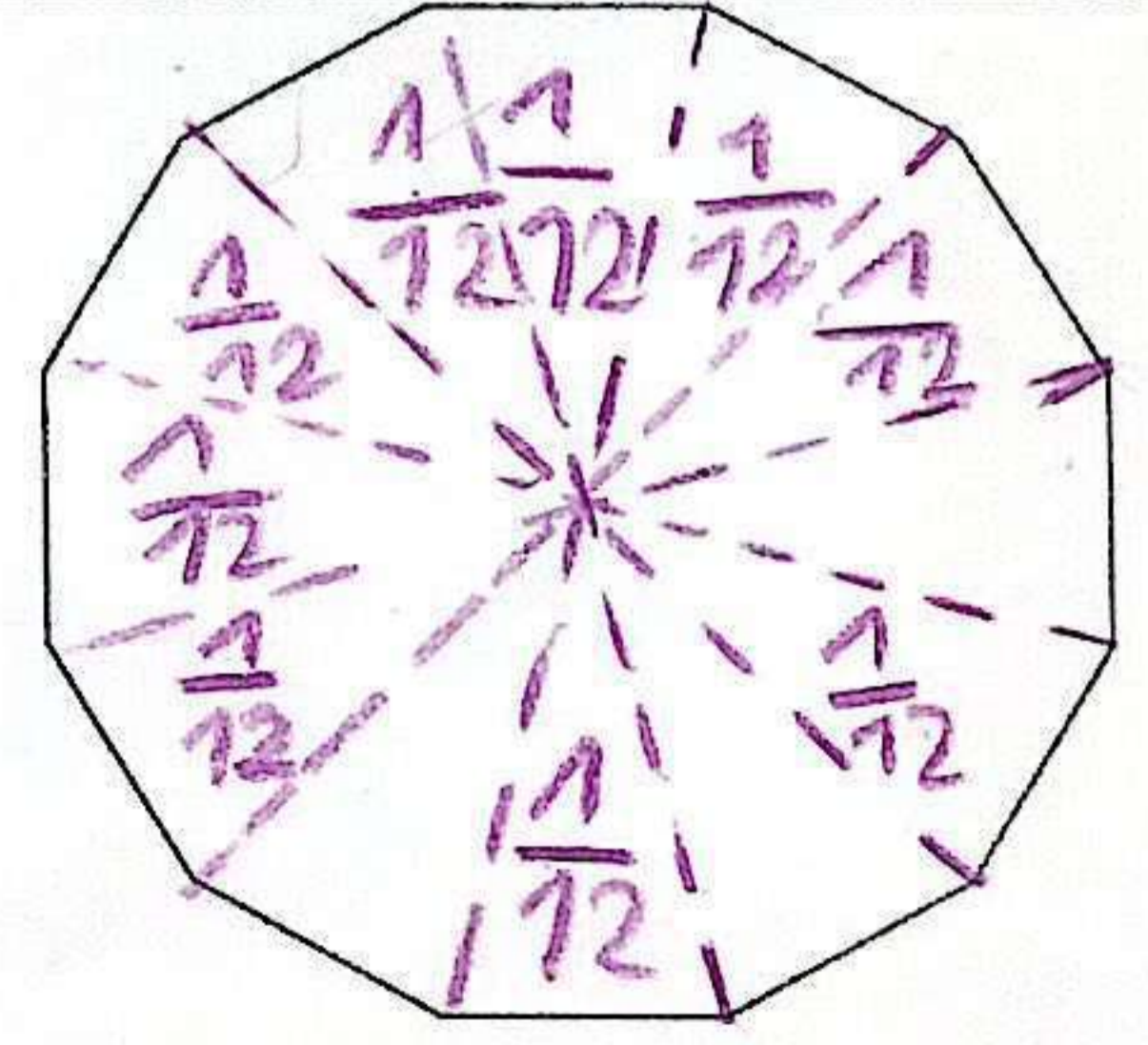


$$\frac{6}{12}$$

(16)



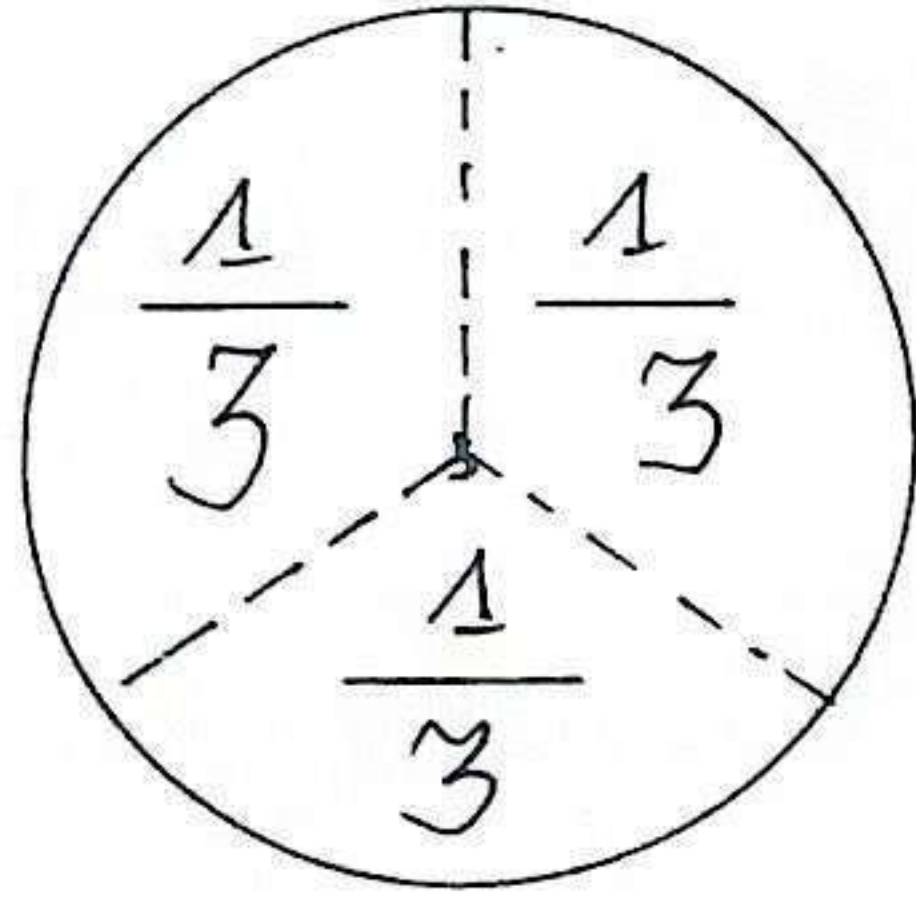
$$\frac{9}{12}$$



5 ESCRIBE cuántos QUEBRADOS son:

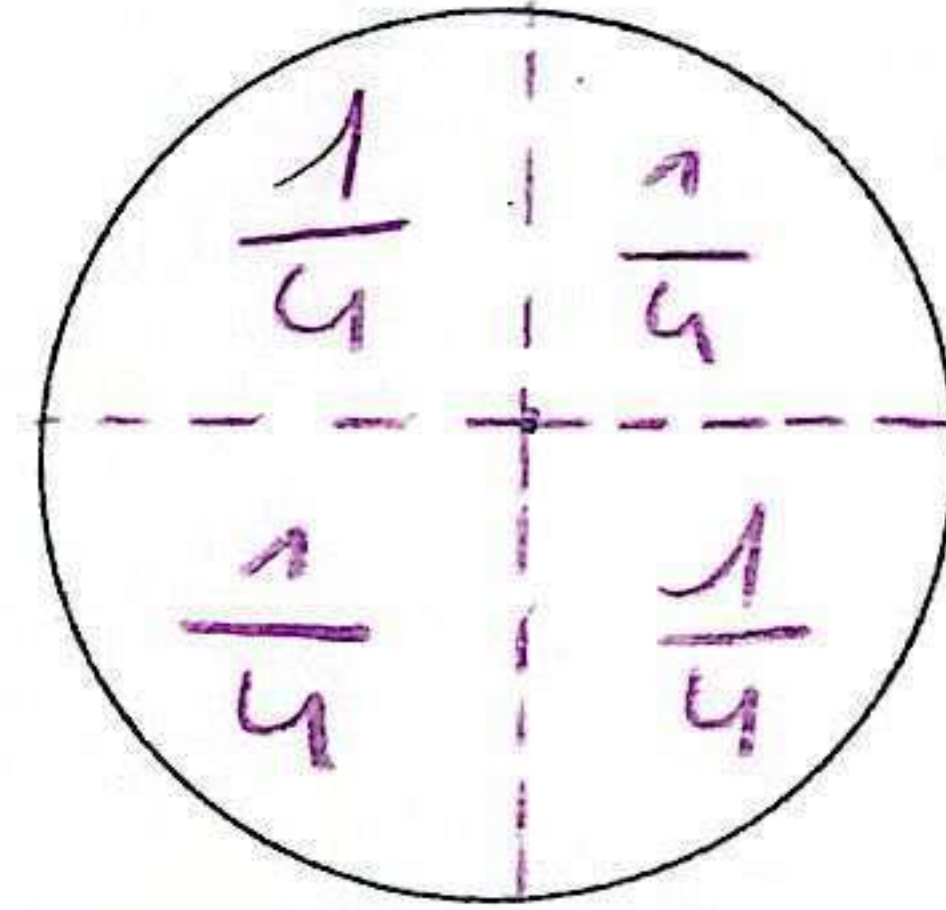
Violeta

1 pizza



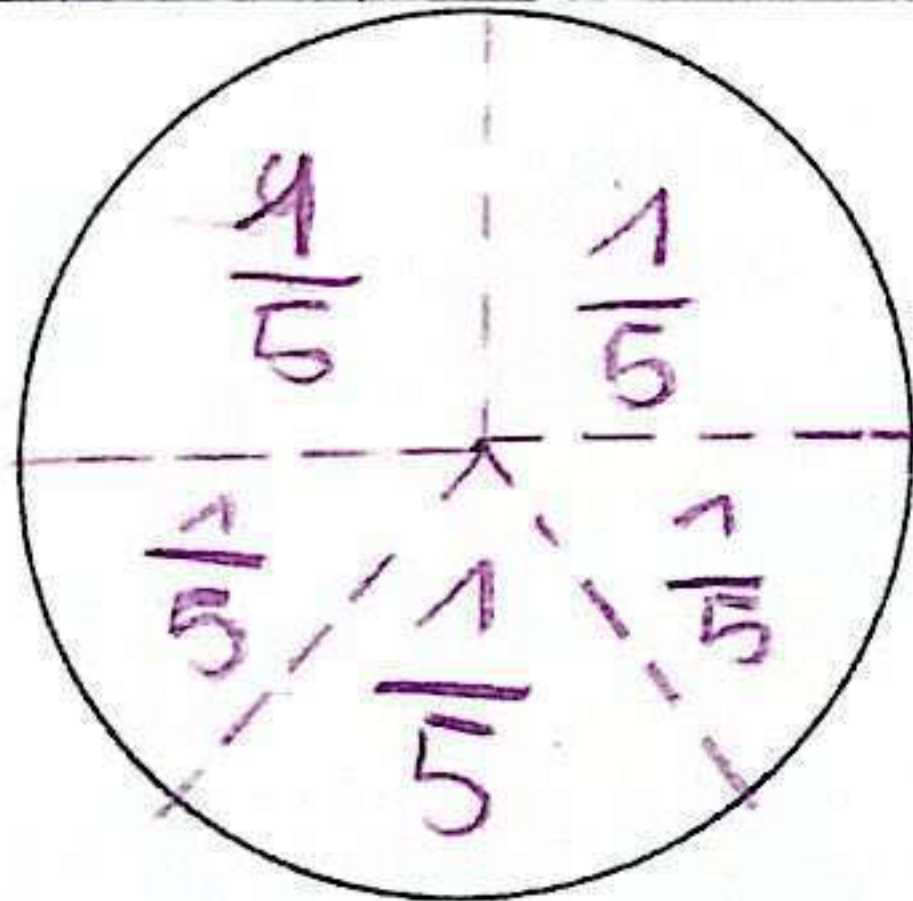
son $\frac{3}{3}$?

1 pizza



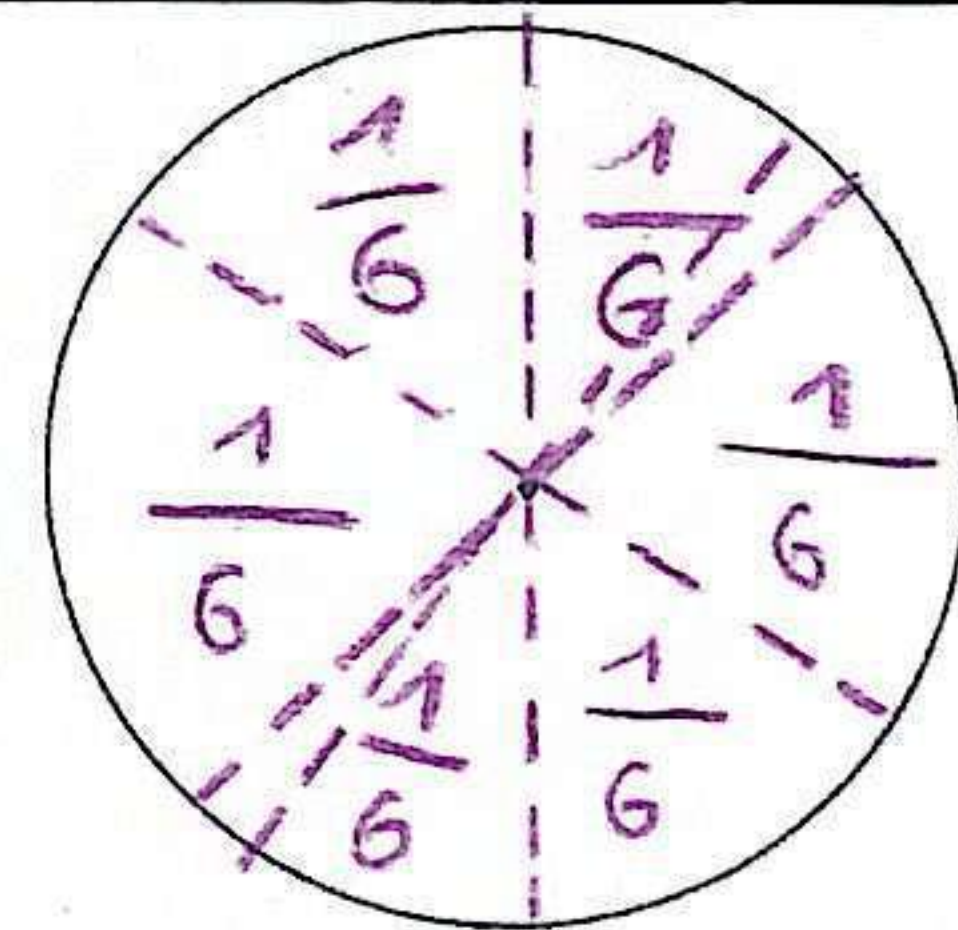
son $\frac{4}{4}$?

1 pizza



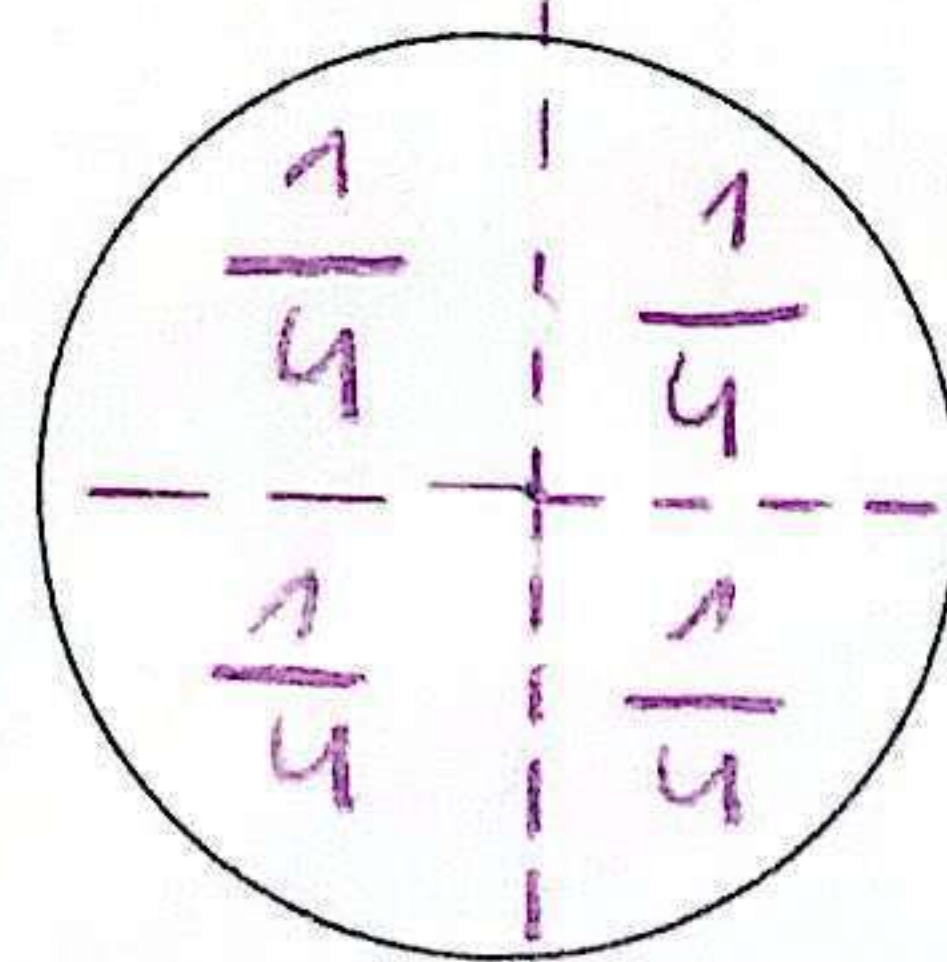
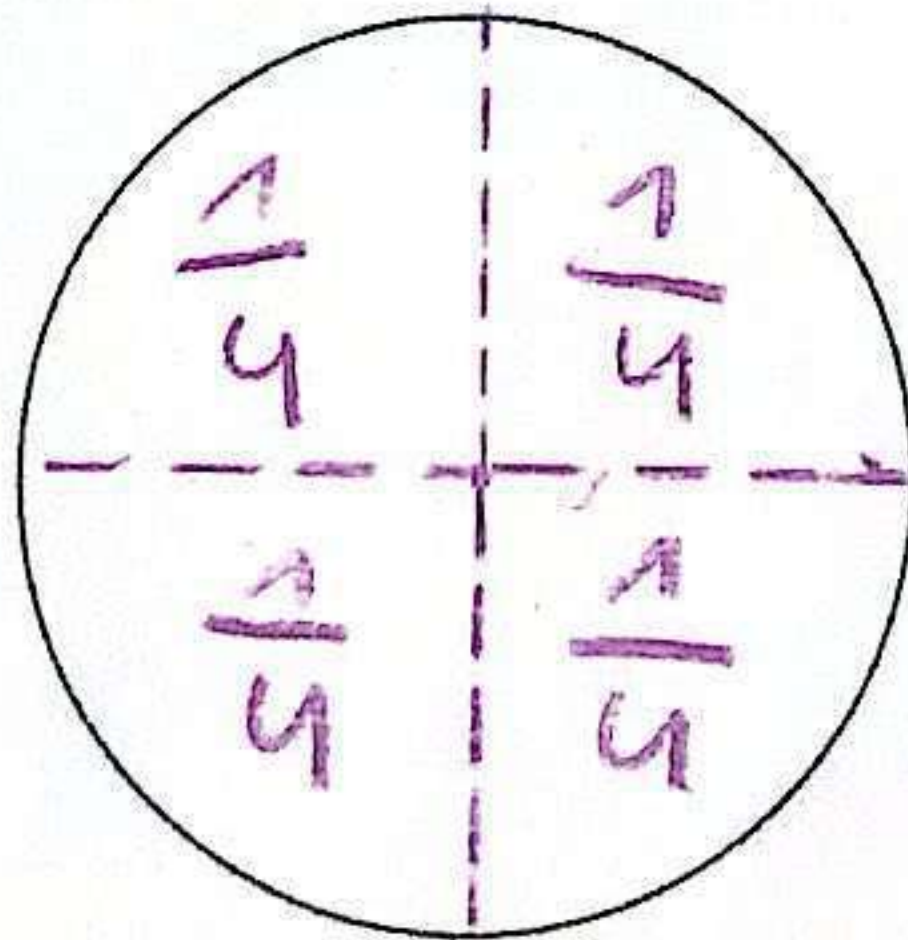
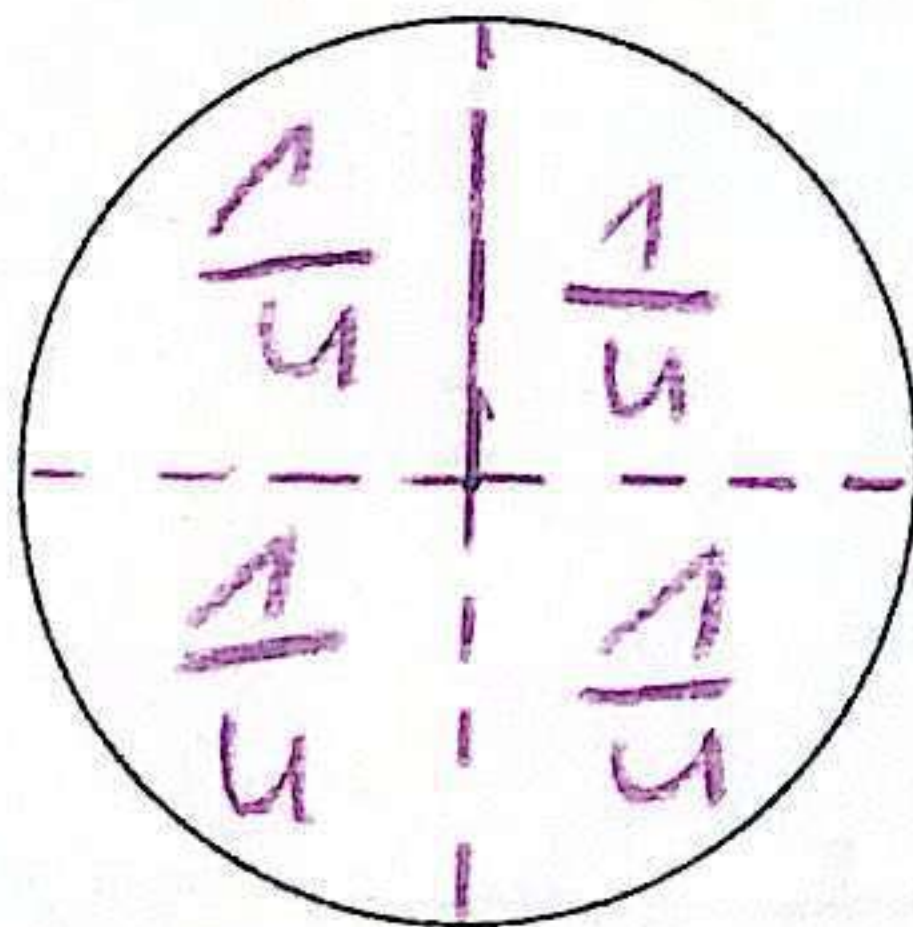
son $\frac{5}{5}$?

1 pizza



son $\frac{6}{6}$?

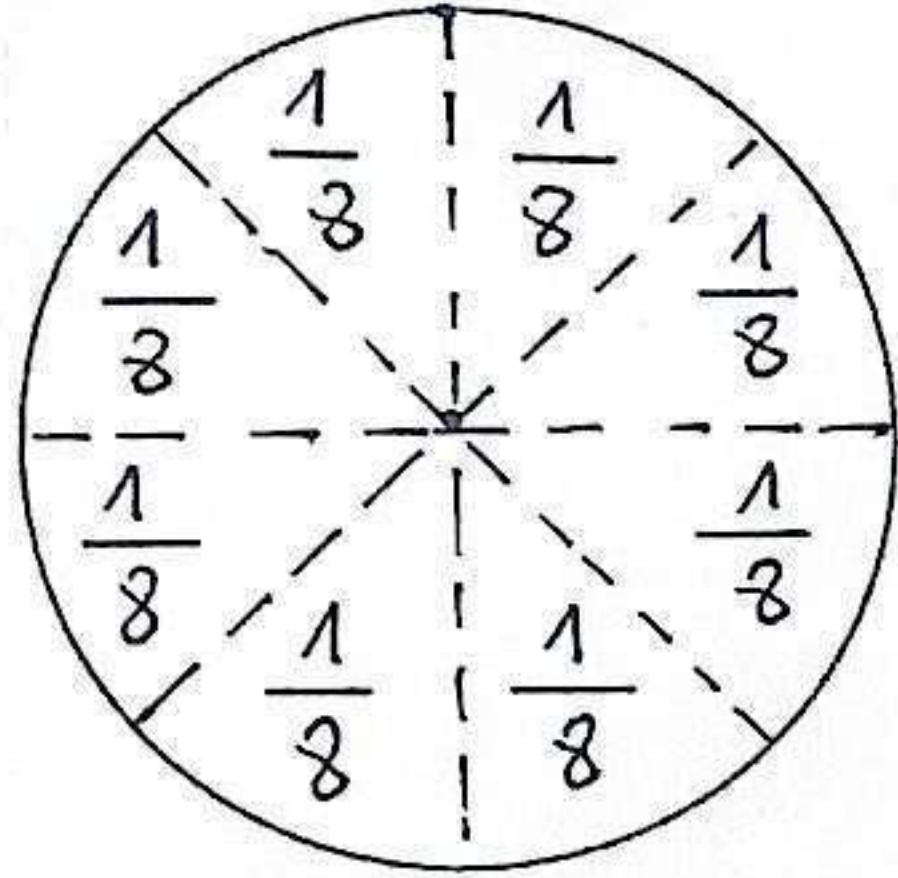
3 pizzas



son $\frac{12}{4}$?

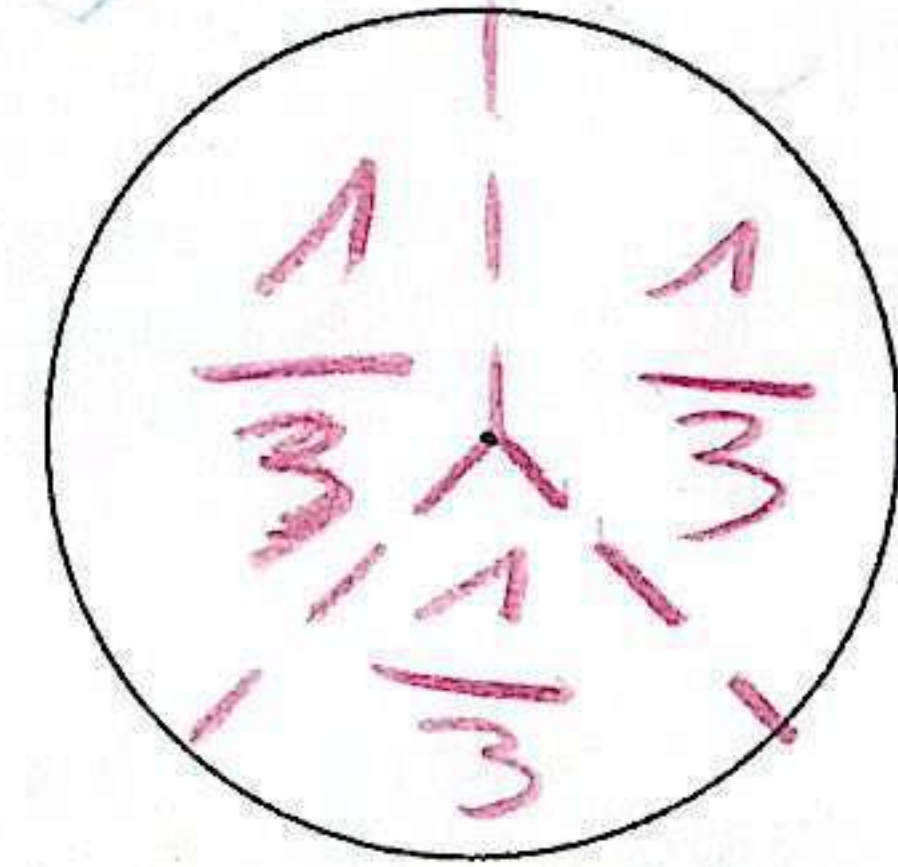
6 ESCRIBE cuántos QUEBRADOS son:

1 pizza



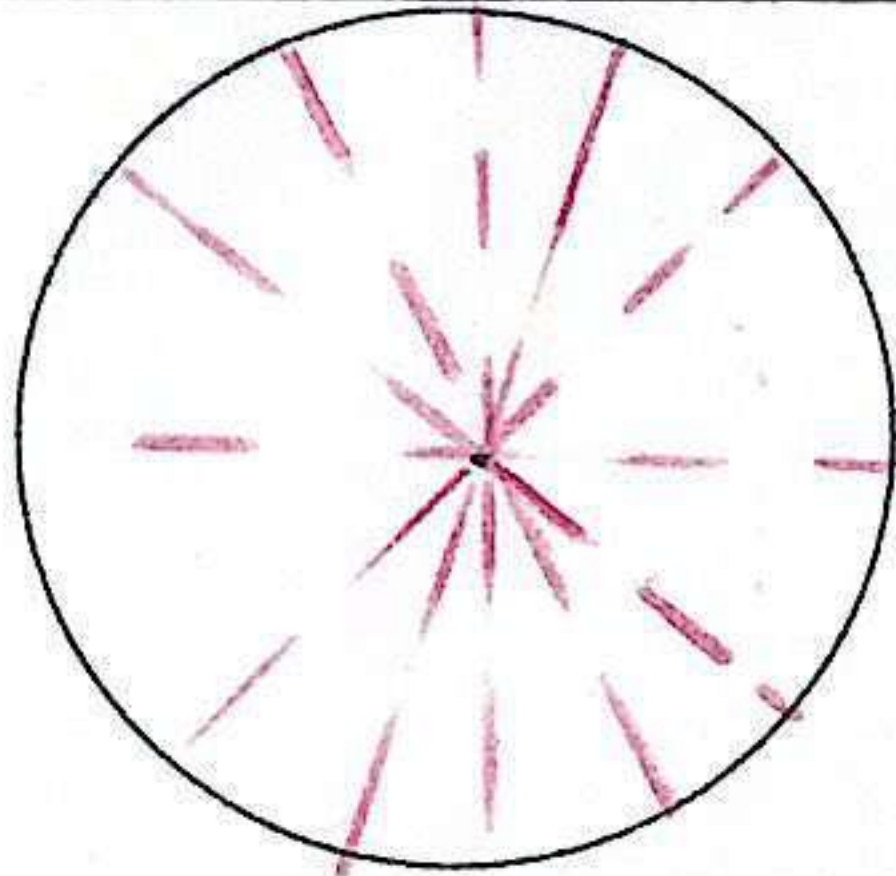
son $\frac{8}{8}$?

1 pizza



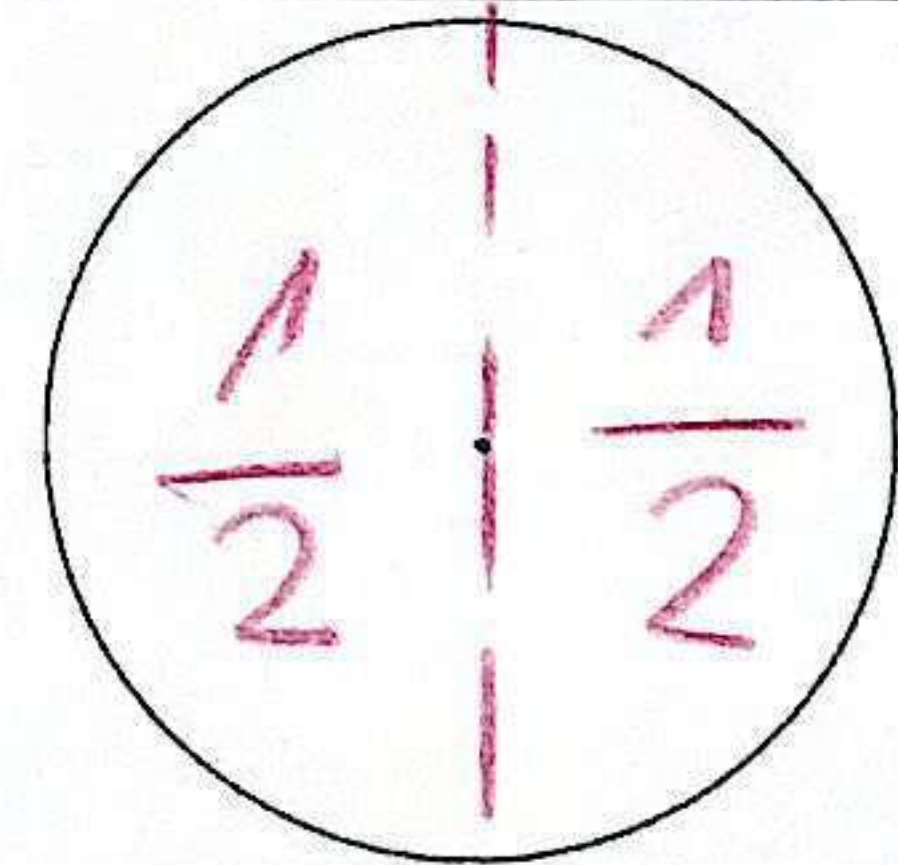
son $\frac{3}{3}$?

1 pizza



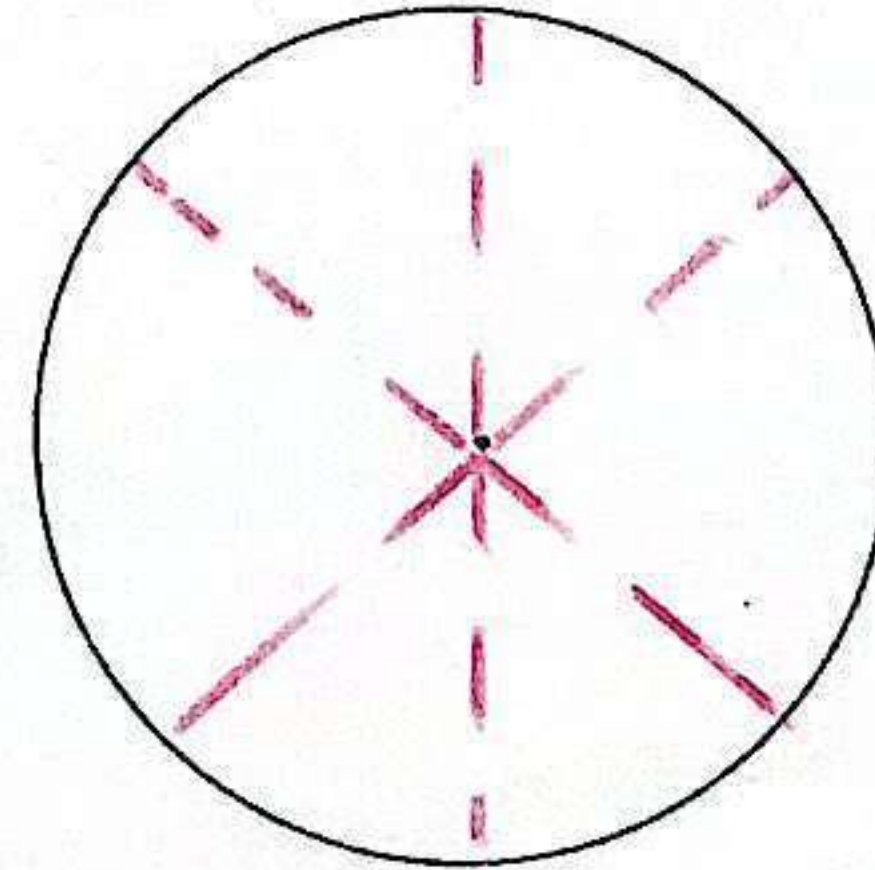
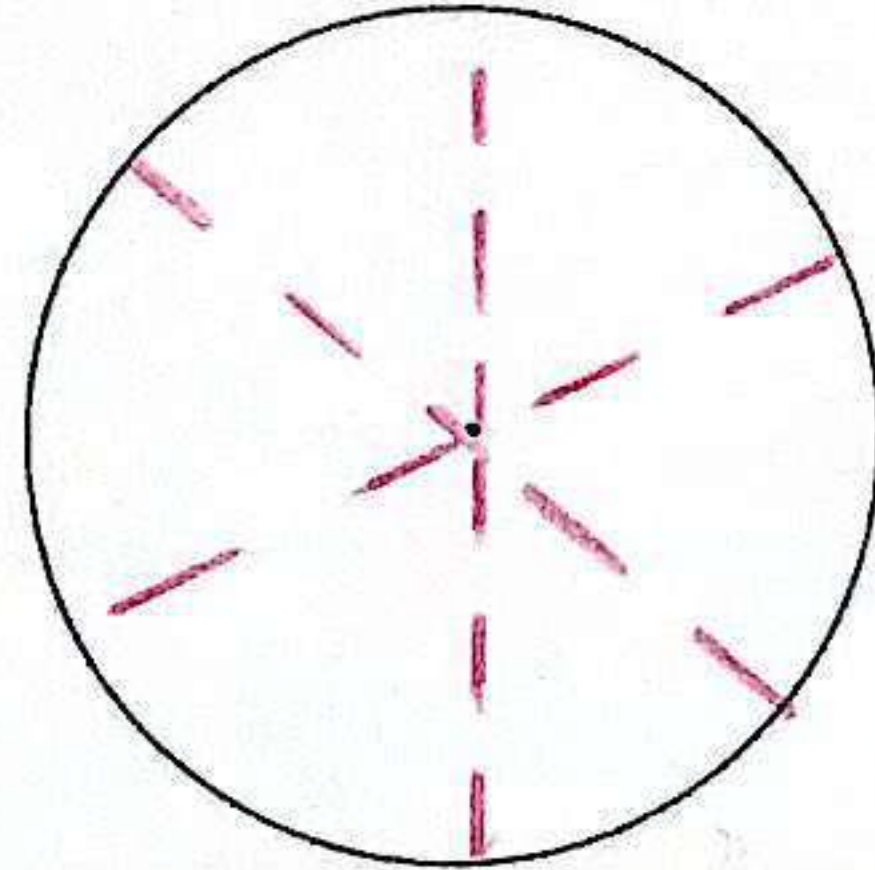
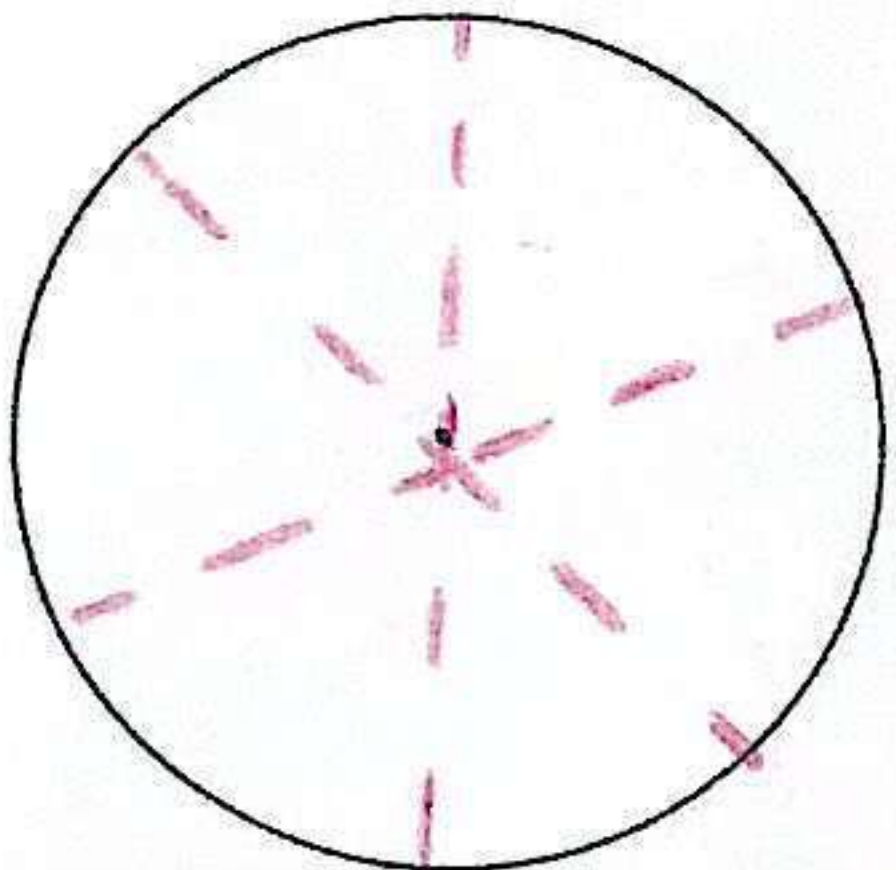
son $\frac{12}{12}$?

1 pizza



son $\frac{2}{2}$?

3 pizzas

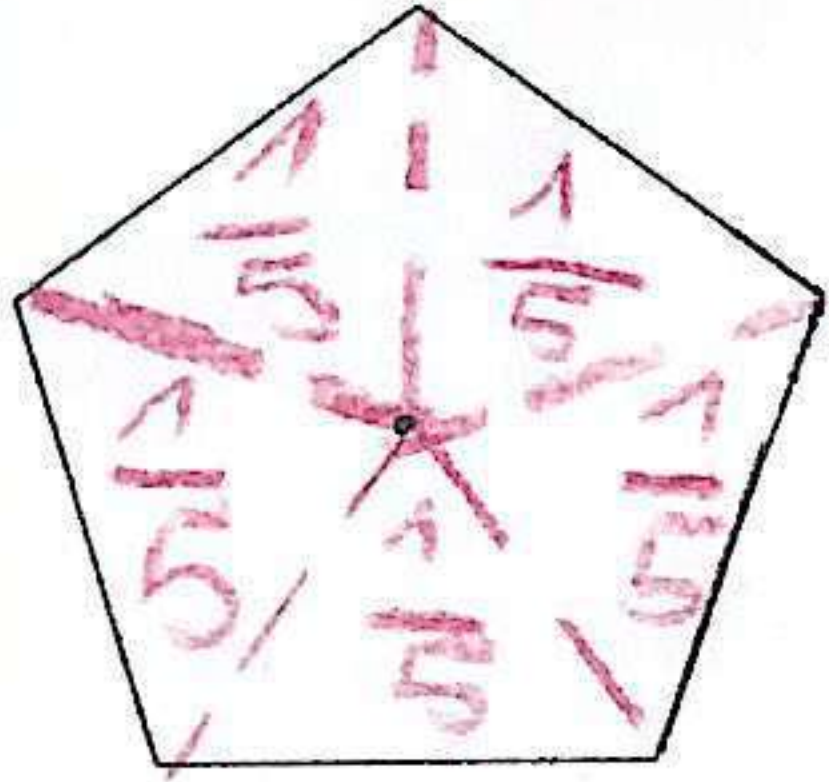


son $\frac{18}{6}$?

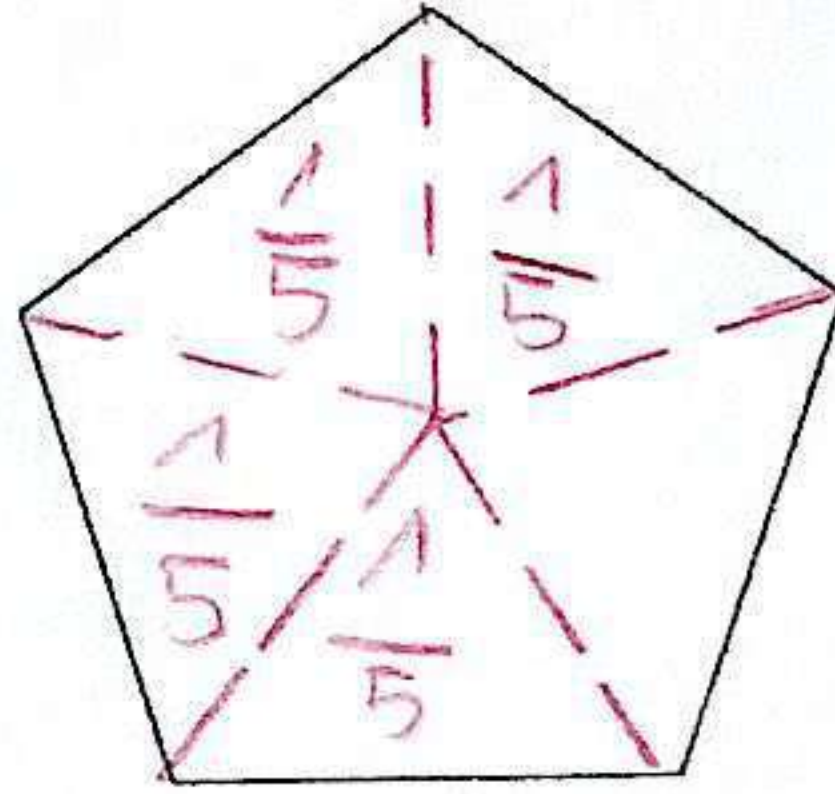
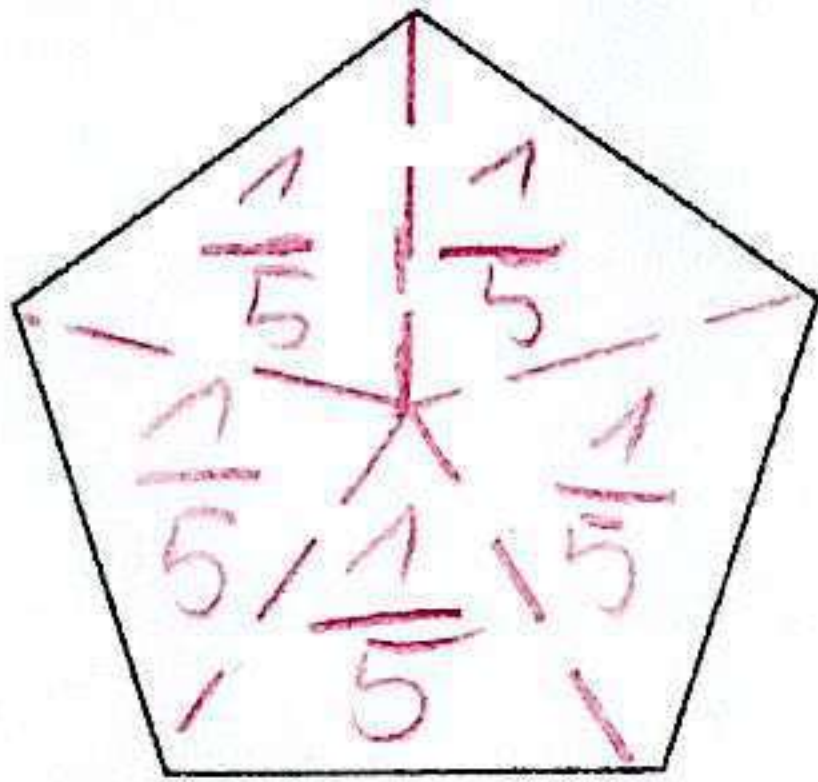
Vivi colabata

7 Traza con líneas discontinuas LOS QUEBRADOS:

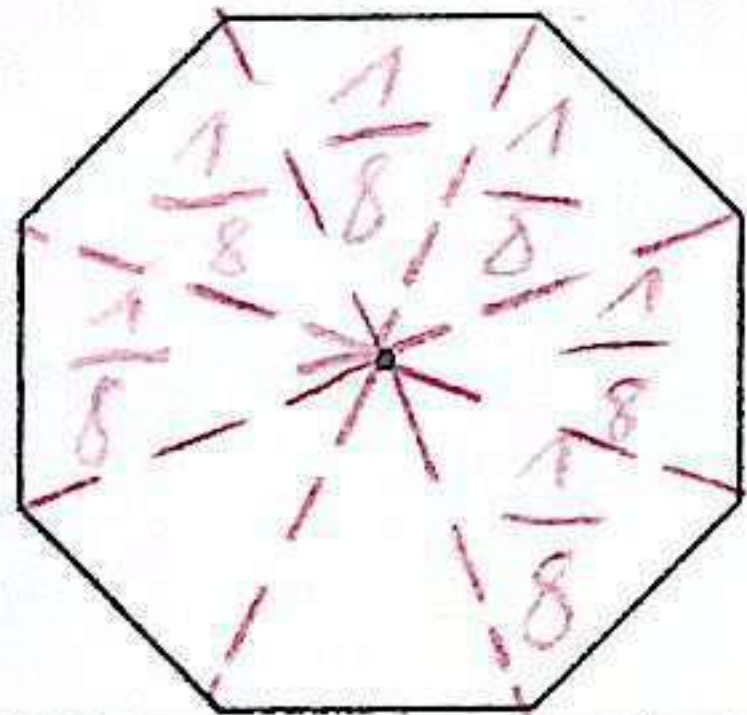
5
5



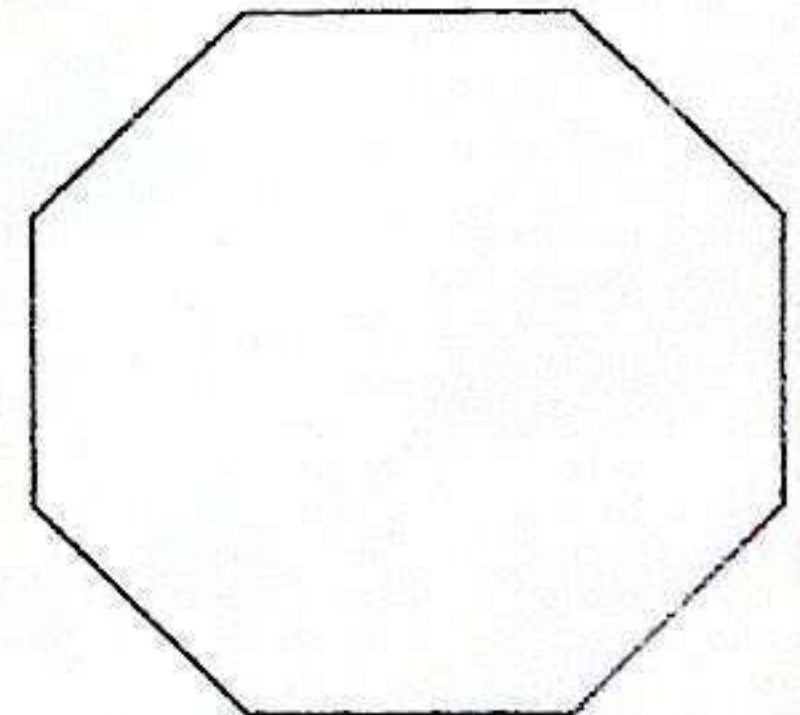
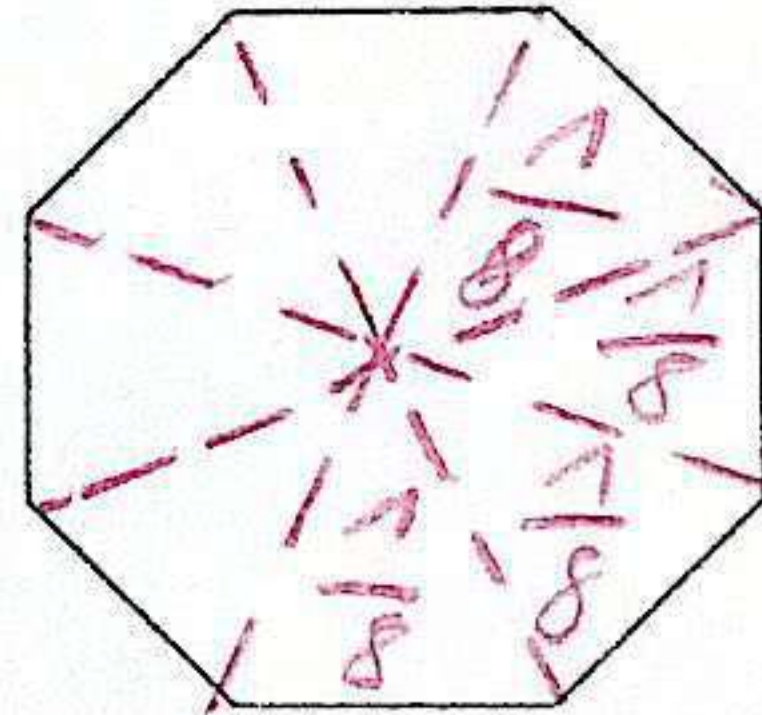
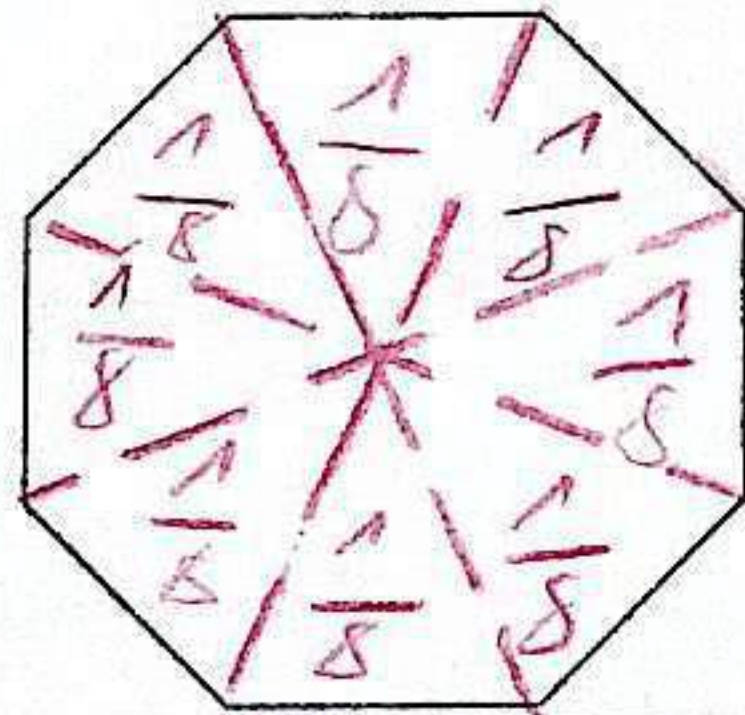
9
5



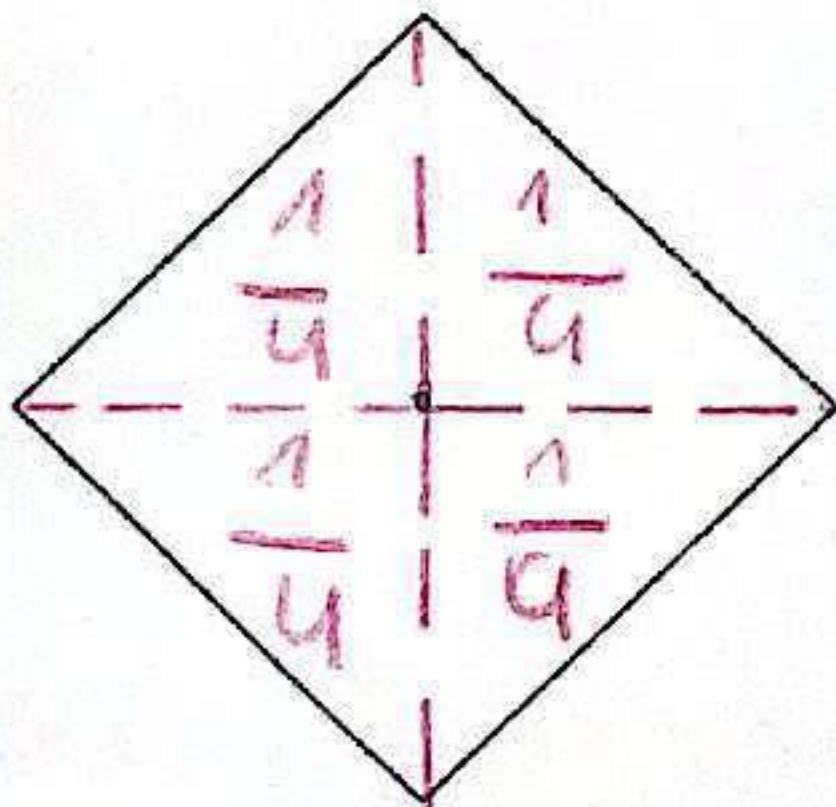
6
8



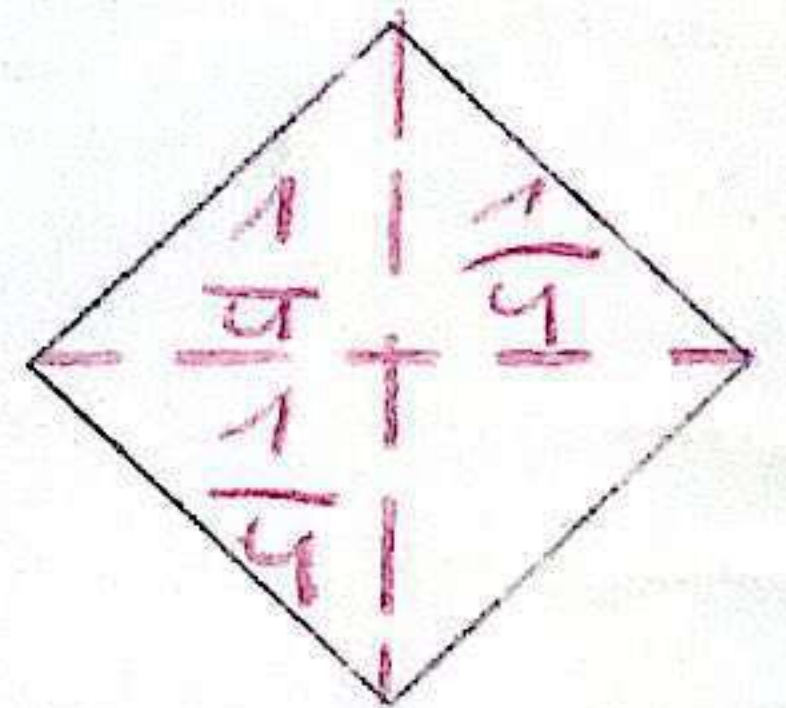
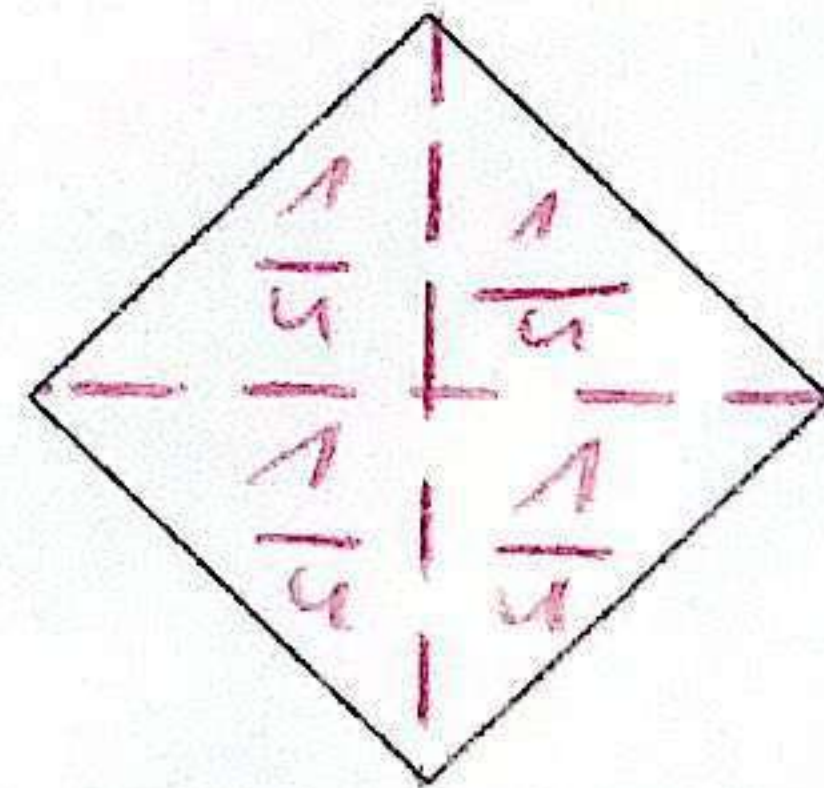
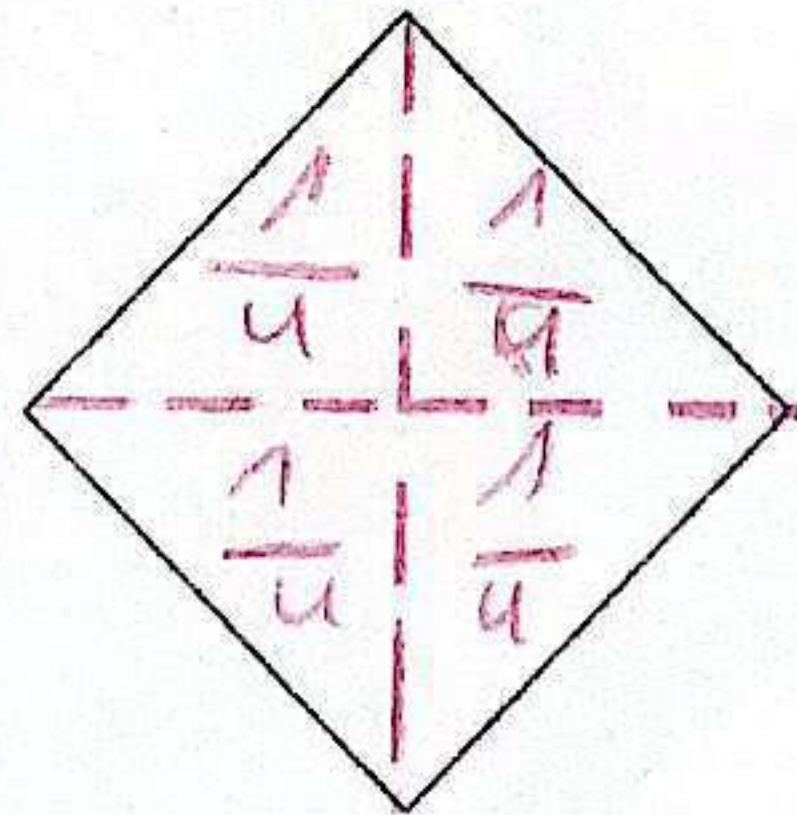
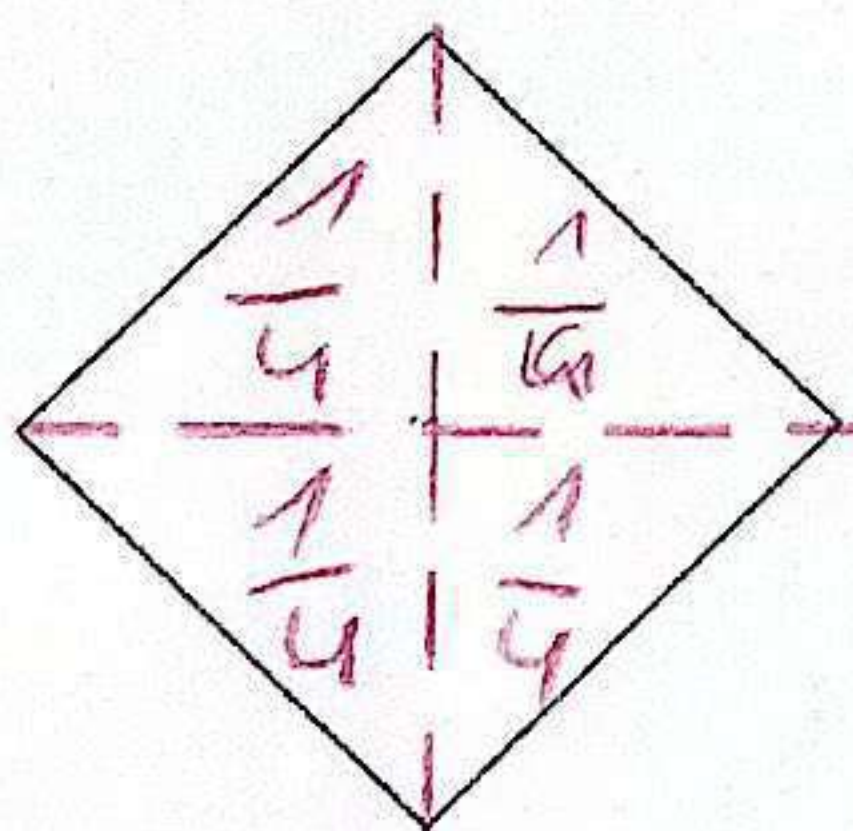
12
8



4
4



















15
4







3-2-19

El entero y los ⁴ que-bra-tes

$$\frac{16}{16}$$







			
			
			
			

$$\frac{3}{16} + \frac{4}{16} + \frac{4}{16} + \frac{3}{16} + \frac{2}{16} = \frac{16}{16}$$

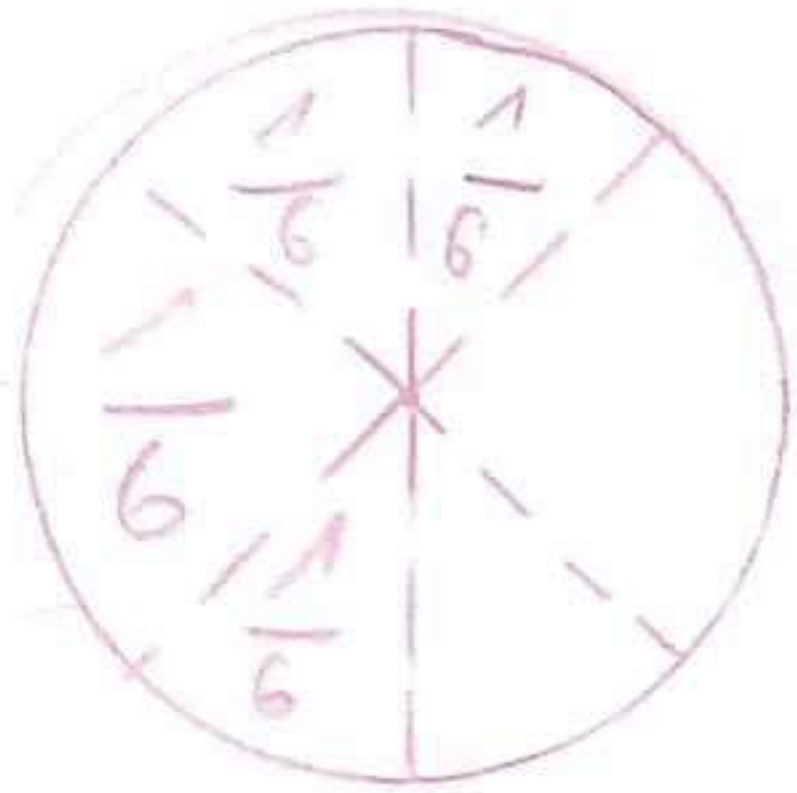
(Note: The original image has some scribbles and corrections over the fractions, including a purple grape cluster and a crossed-out fraction.)



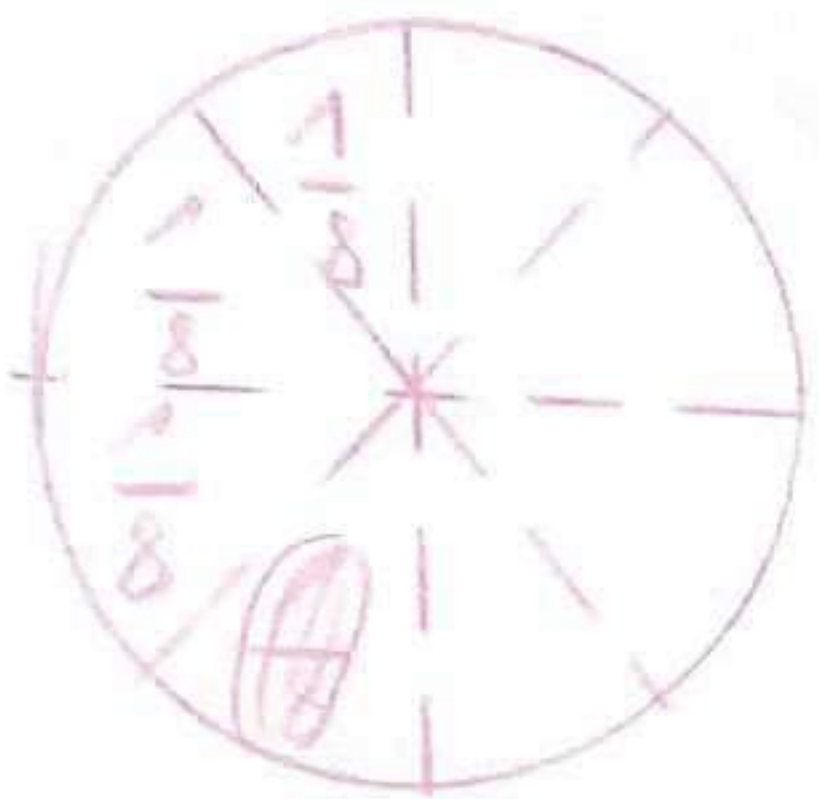
	
$\frac{2}{16}$	$\frac{3}{16}$
4	4
	
$\frac{2}{16}$	$\frac{1}{16}$
4	4
	
$\frac{5}{16}$	$\frac{3}{16}$
4	=
$\frac{16}{16}$	
<u>16</u>	

9-II-14

Que-brados "VERDADEROS"
son menos que el ENTERO



$$\frac{4}{6} = \frac{2}{3} \text{ menos que } \frac{6}{6}$$

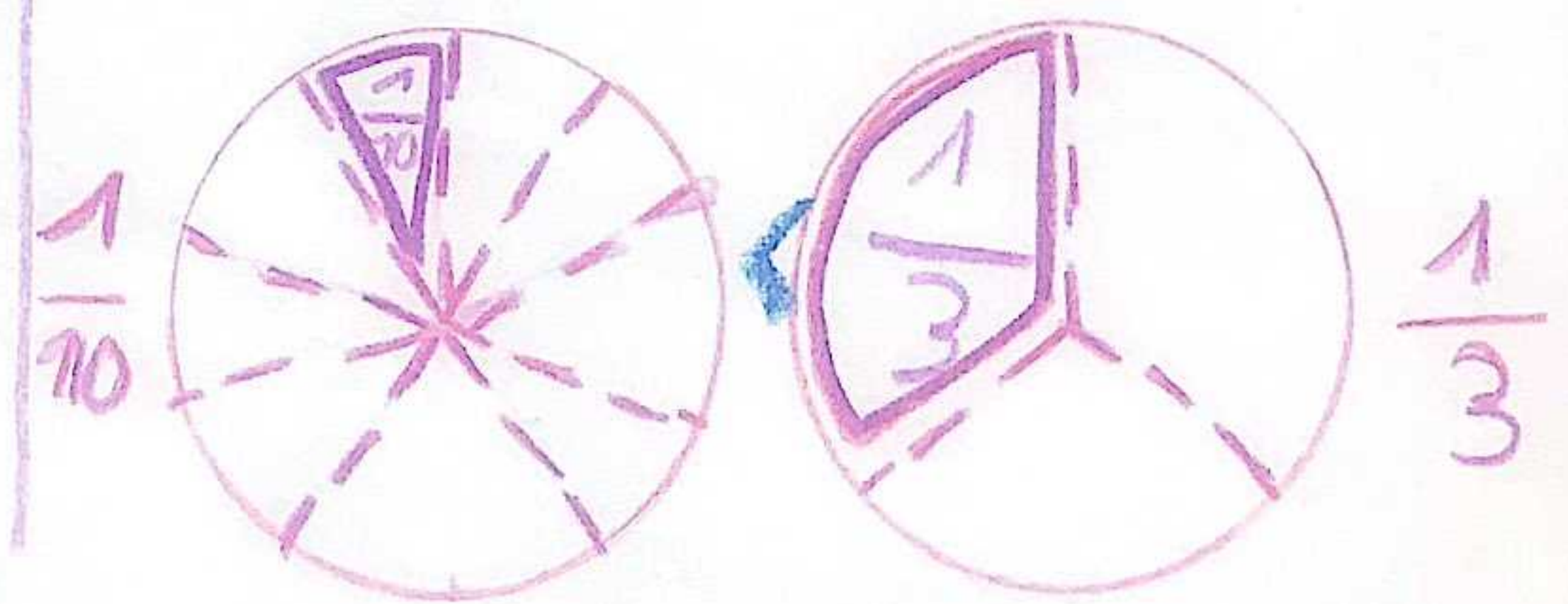
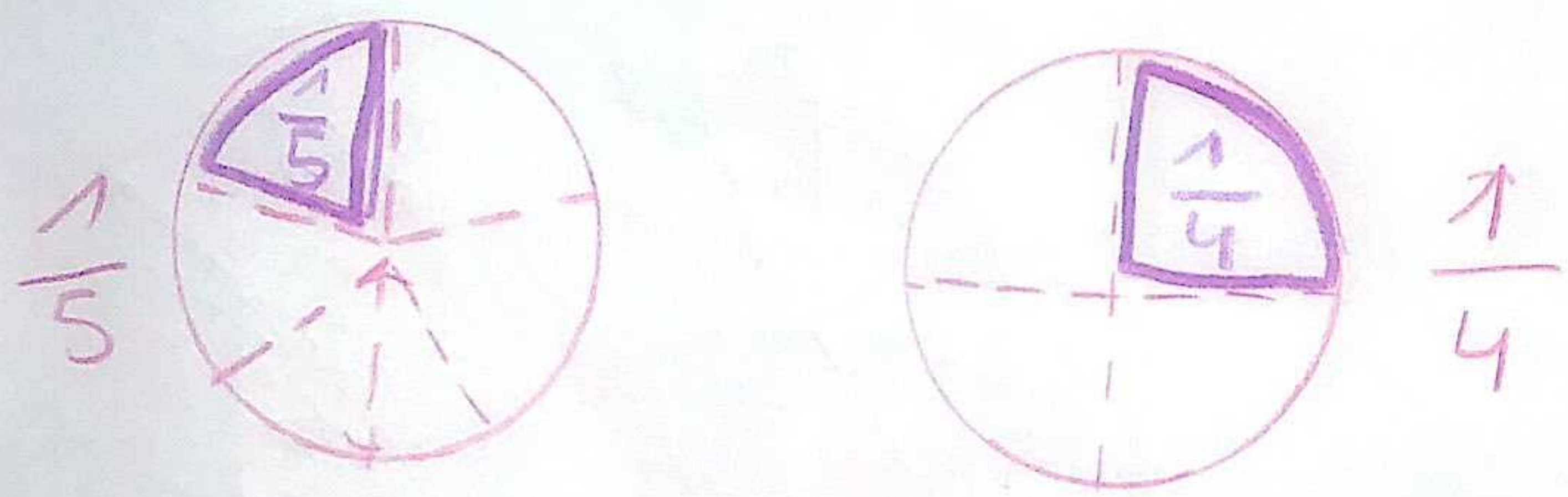
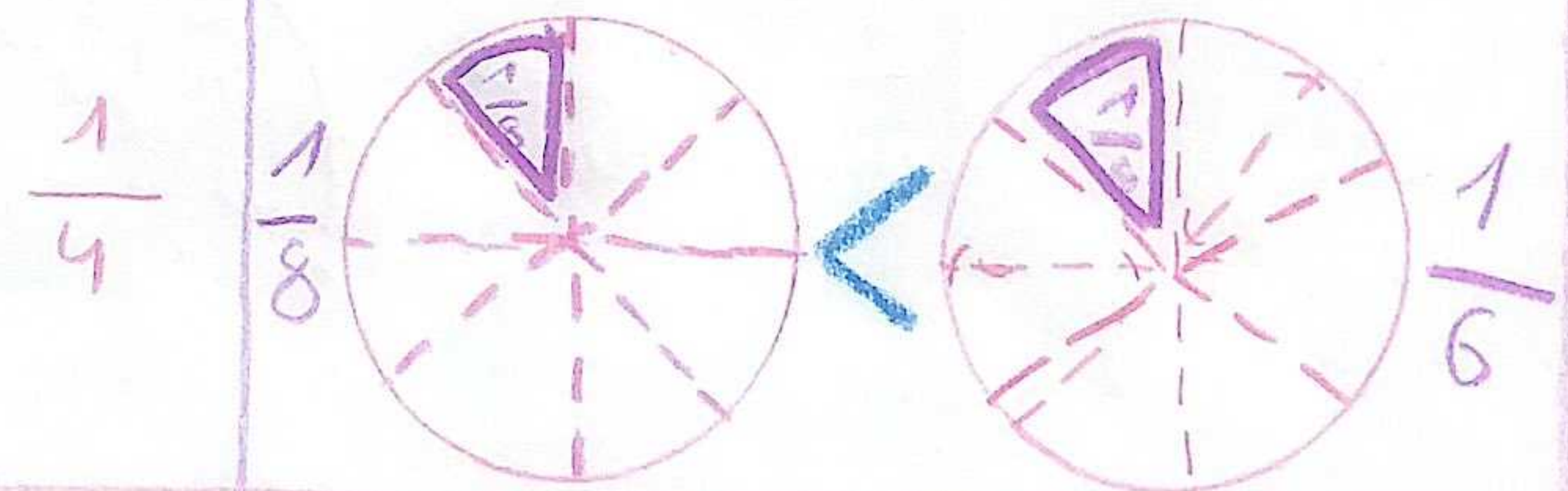
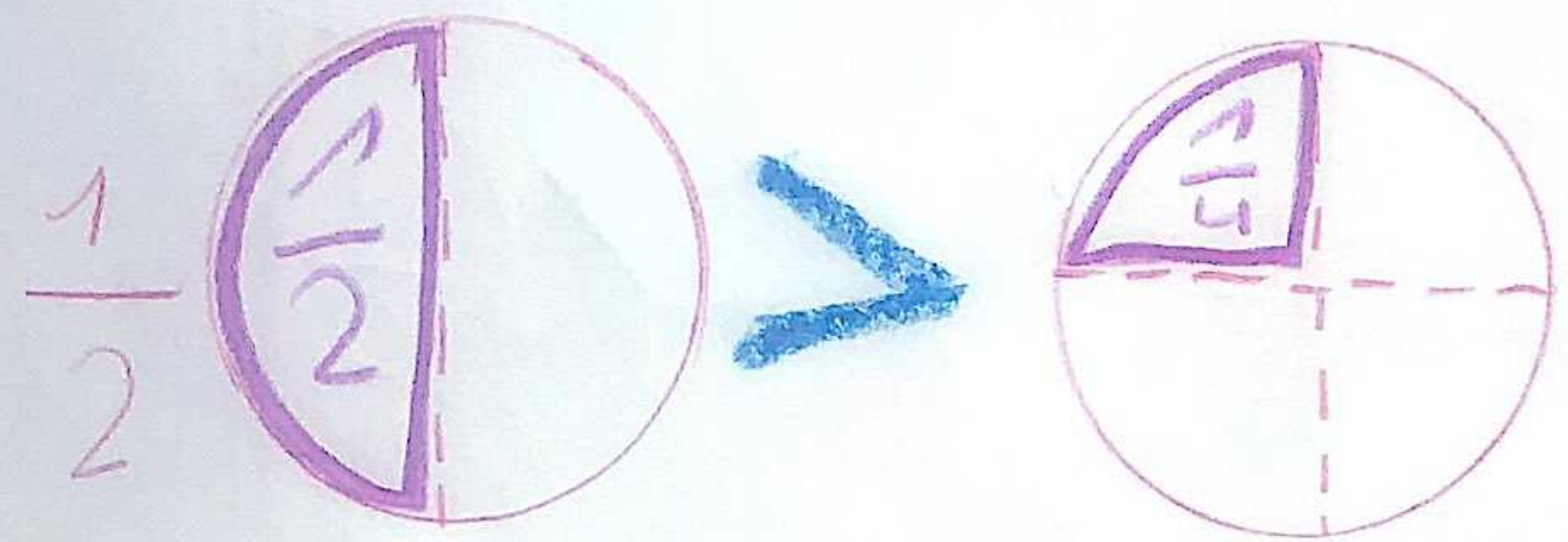


$$\frac{3}{8} = \frac{3}{8} \text{ menos que } \frac{8}{8}$$

COMPARAMOS

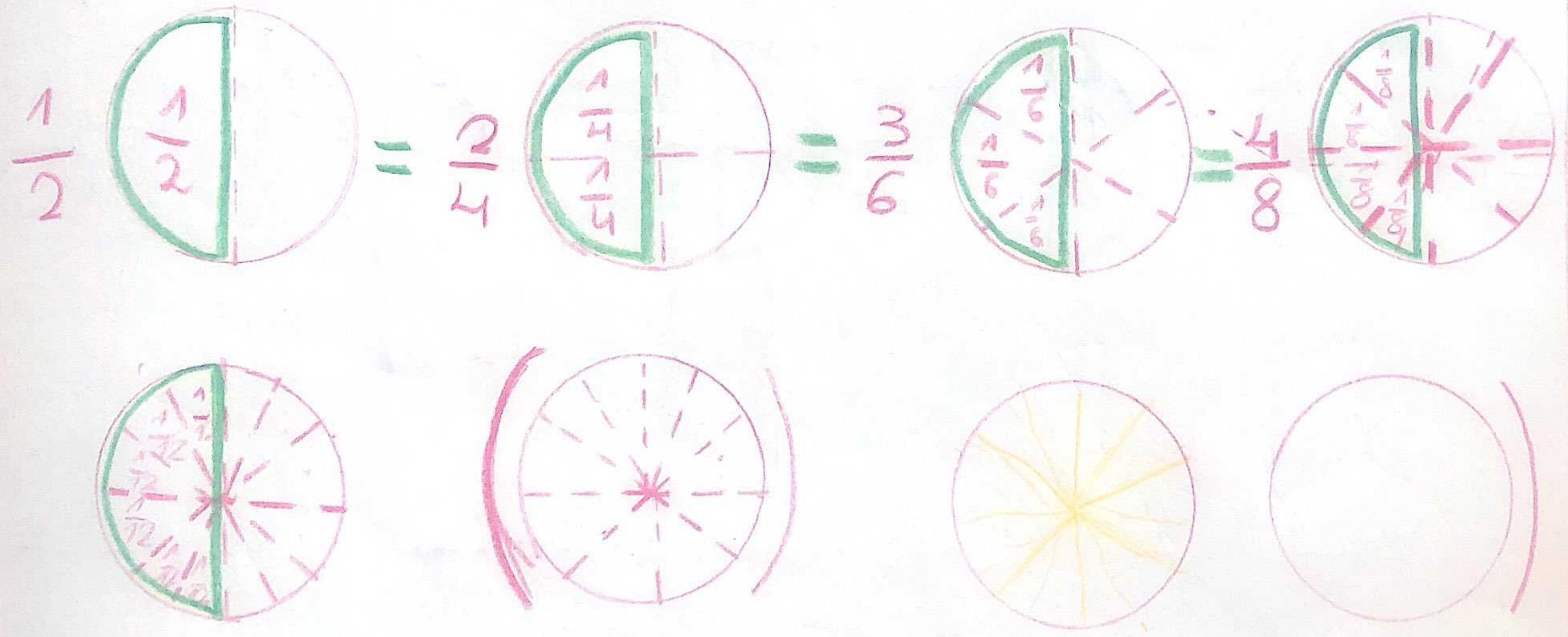
que-bra-dos
66 VERDADEROS

> < >

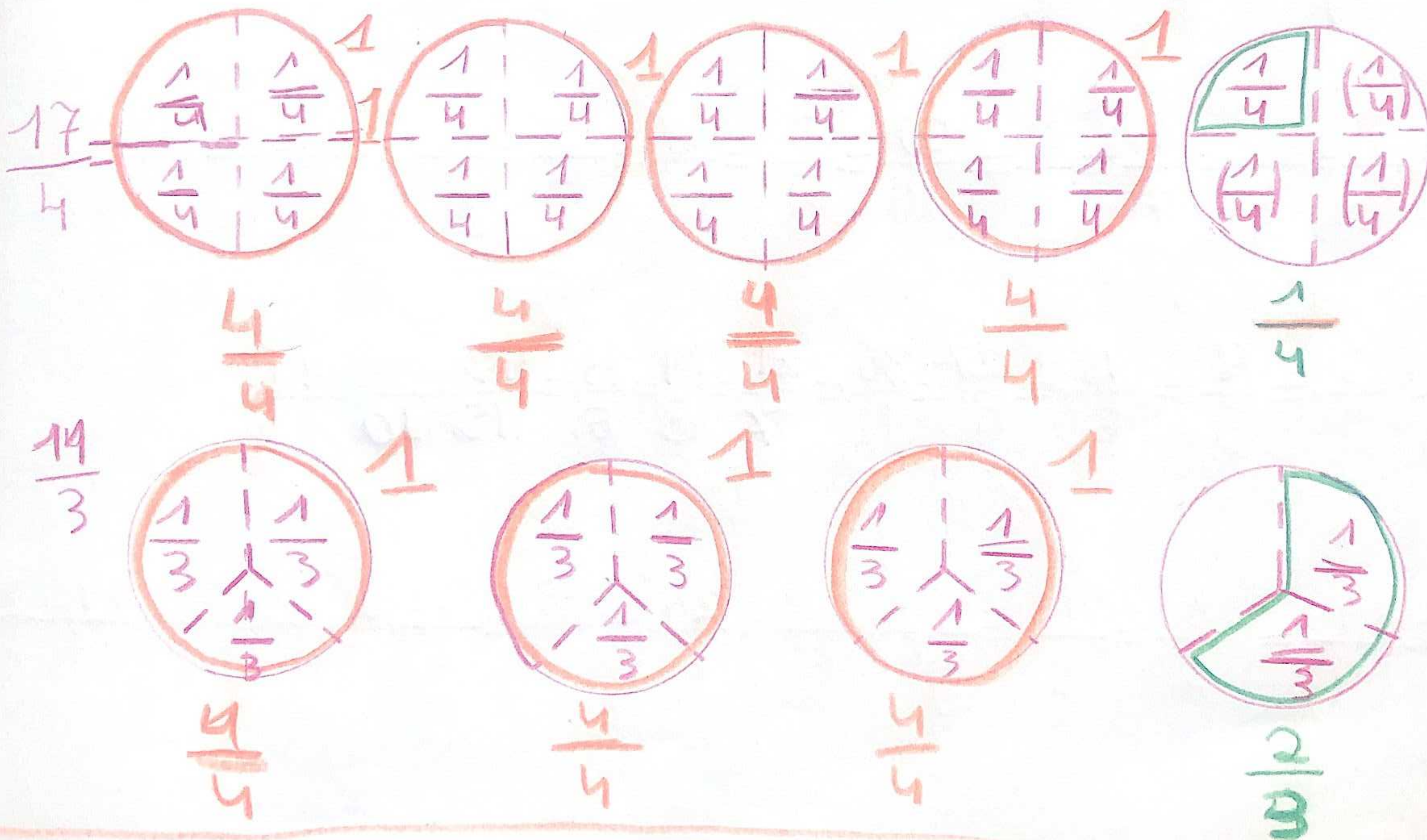


7-2-14

Que-bran-dos "VERDADEROS" Iguales =



Sacamos ENTEROS



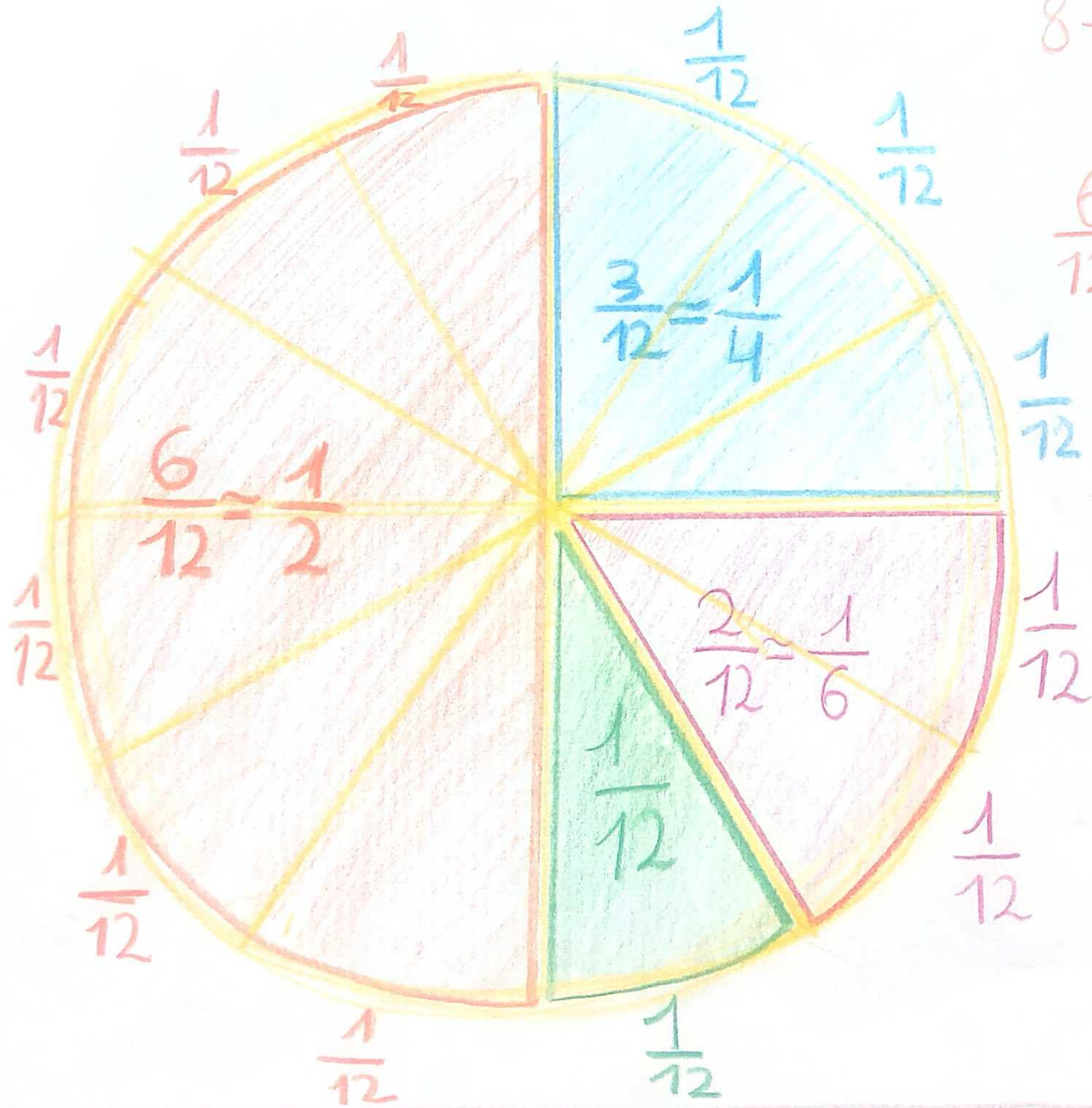
$$2 = \frac{2}{1} = \frac{4}{2} = \frac{6}{3} = \frac{8}{4} = \frac{10}{5} = \frac{12}{6} = \frac{14}{7} \dots$$

$$2 = \frac{10}{5} = \frac{4}{2} = \frac{14}{7} = \frac{6}{3} = \frac{20}{10} = \frac{8}{4} = \frac{16}{8} = \frac{2}{1} = \frac{12}{6} = \frac{18}{9} = \frac{24}{12} \dots$$

$$3 = \frac{3}{1} = \frac{9}{3} = \frac{18}{6} = \frac{27}{9} = \frac{36}{12} = \frac{21}{7} = \frac{24}{8} = \frac{18}{6} = \frac{45}{15} = \frac{30}{10} = \frac{90}{30} \dots$$

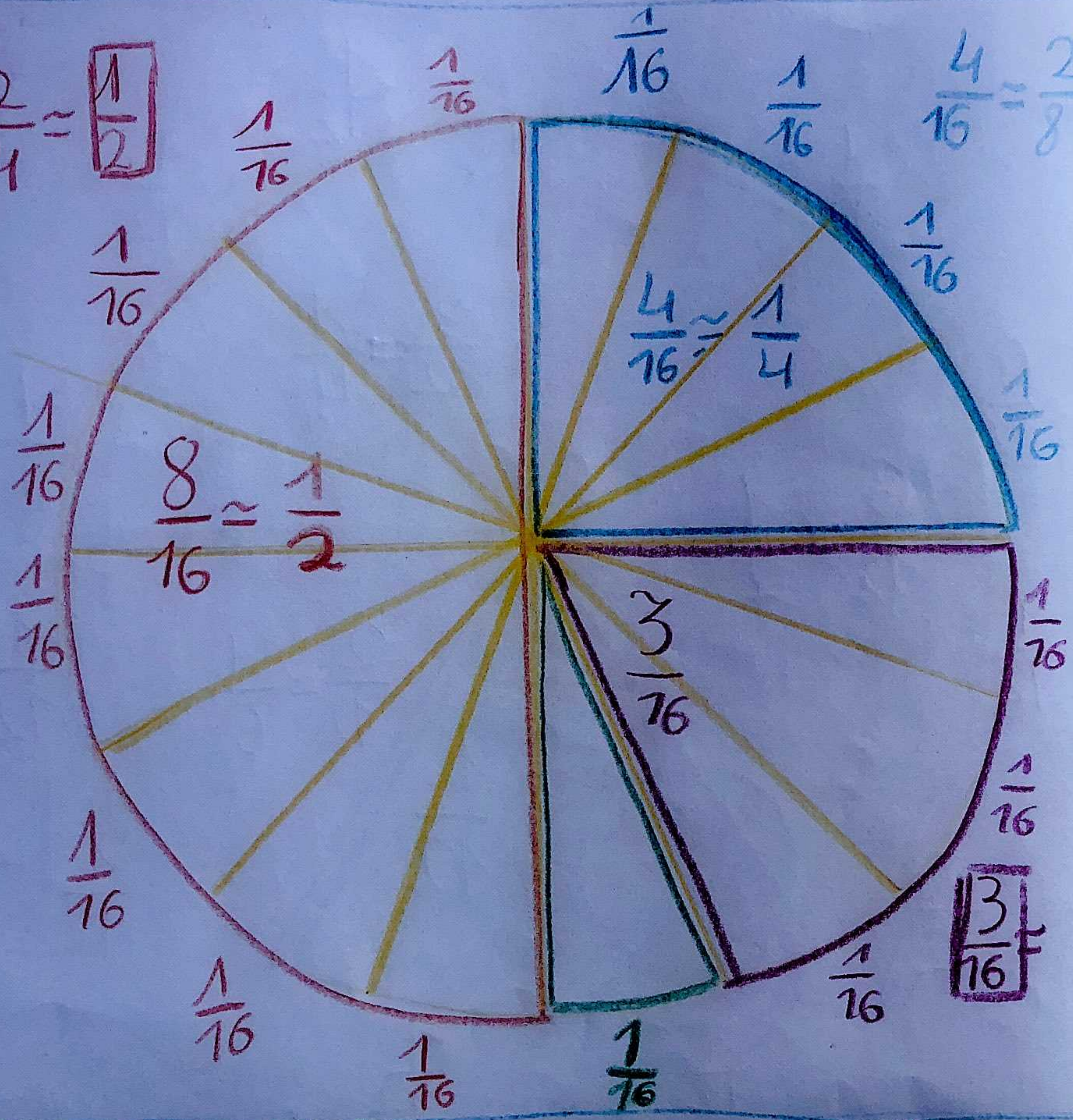
$$4 = \frac{4}{1} = \frac{8}{2} = \frac{12}{3} = \frac{16}{4} = \frac{20}{5} = \frac{24}{6} = \frac{28}{7} = \frac{32}{8} = \frac{36}{9} = \frac{40}{10} = \frac{44}{11} = \frac{48}{12}$$

8-5-14.



$$\frac{8}{16} \approx \frac{4}{8} \approx \frac{2}{4} \approx \boxed{\frac{1}{2}}$$

$$\frac{4}{16} = \frac{2}{8} \approx \boxed{\frac{1}{4}}$$



$$\boxed{\frac{1}{16}}$$

$$\boxed{\frac{3}{16}}$$

6/3 Quebrar = división 6:3 $\frac{6}{3}$

Numerador = las partes que TOMO
Denominador = las partes que HAGO

x HAGO quintos y TOMO tres: ~~$\frac{3}{5}$~~ 3/5 3:5

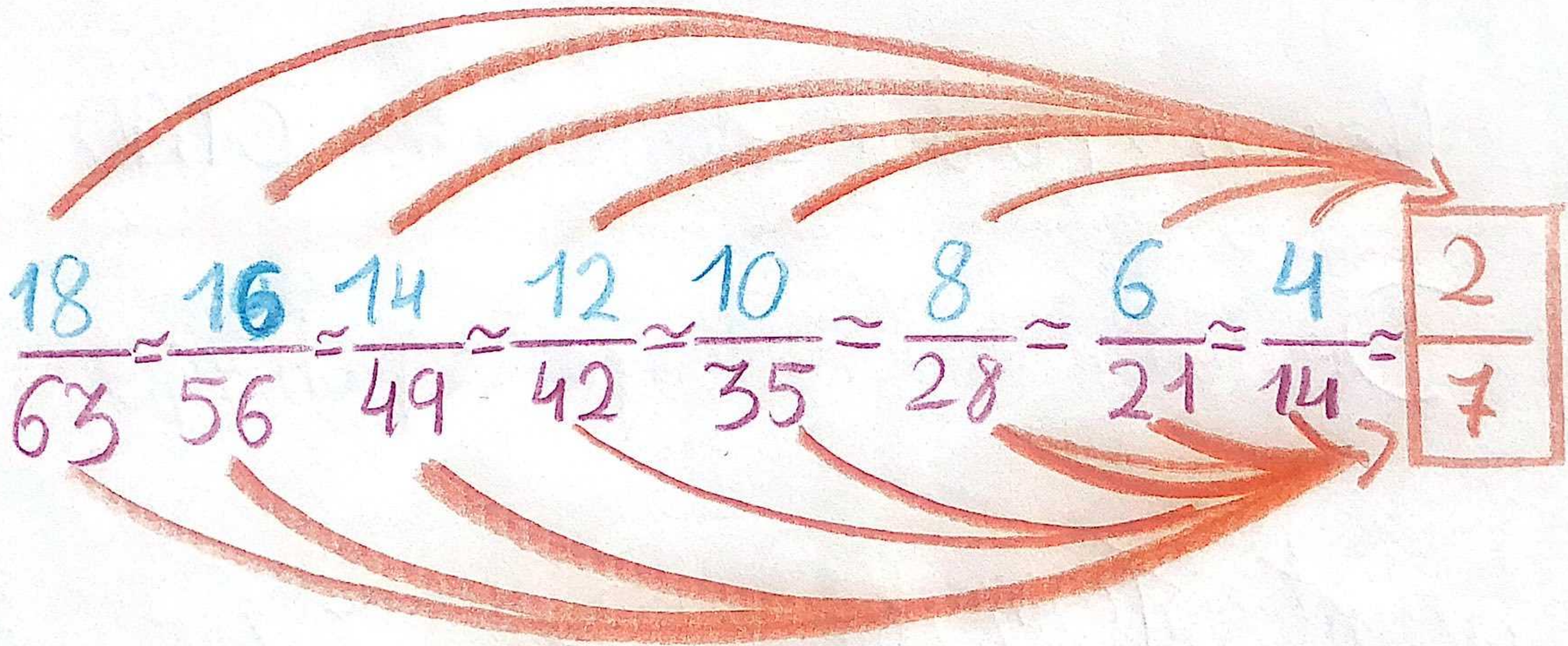
HAGO tercios y TOMO uno: $\frac{1}{3}$ 1/3 1:3

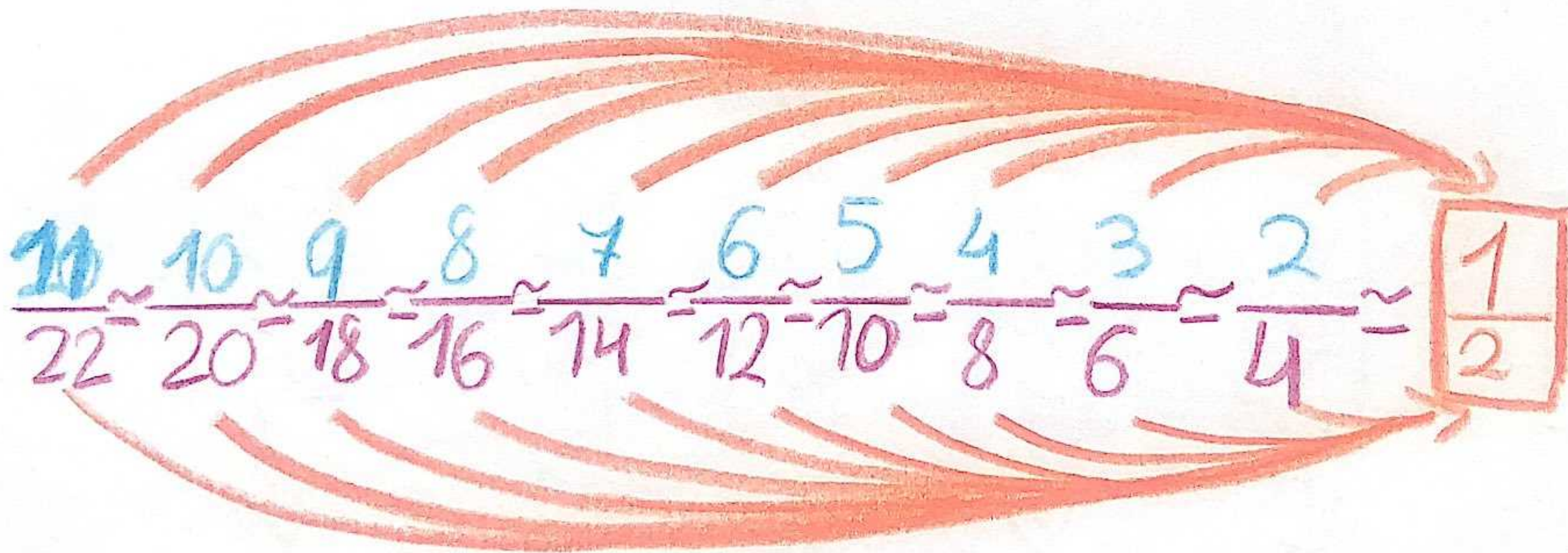
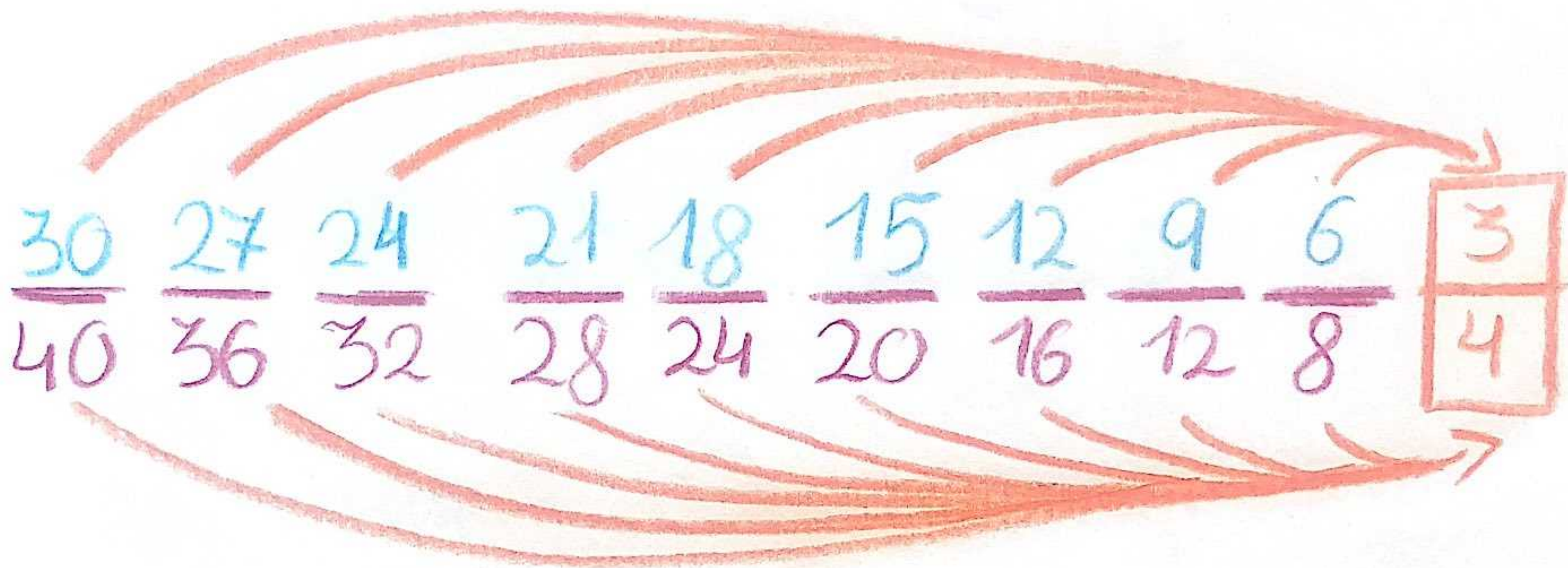
Quadrados

"SEHILLA":

la forma más

SIMPLE de escribirlos.





15-V-2014

SIMPLIFICAR (SEMILLA) y AMPLIAR (*) EQUIVALENTE

Que brados Propios.

$$\frac{3}{6} \downarrow \boxed{\frac{1}{2}} \downarrow \frac{4}{8}$$

$$\frac{4}{6} \downarrow \boxed{\frac{2}{3}} \downarrow \frac{6}{9}$$

$$\frac{4}{16} \downarrow \boxed{\frac{1}{4}} \downarrow \frac{3}{12}$$

$$\frac{5}{25} \downarrow \boxed{\frac{1}{5}} \downarrow \frac{10}{50}$$

$$\frac{2}{12} \downarrow \boxed{\frac{1}{6}} \downarrow \frac{6}{36}$$

$$\frac{14}{70} \downarrow \boxed{\frac{2}{10}} \downarrow \frac{6}{30}$$

$$\frac{18}{36} \downarrow \boxed{\frac{3}{6}} \downarrow \frac{9}{18}$$

$$\frac{16}{80} \downarrow \boxed{\frac{2}{10}} \downarrow \frac{4}{20}$$

↓ SIMPLIFICAMOS por dos caminos:

Con varios pasos:

$$\frac{15}{20} \sim \frac{15}{20} \sim \frac{12}{16} \sim \frac{9}{12} \sim \frac{6}{8} \sim \frac{3}{4}$$

$$\frac{12}{15} \sim \frac{12}{15} \sim \frac{6}{10} \sim \frac{3}{5}$$

$$\frac{20}{40} \sim \frac{20}{40} \sim \frac{15}{30} \sim \frac{10}{20} \sim \frac{5}{10}$$

$$\frac{20}{25} \sim \frac{20}{25} \sim \frac{16}{20} \sim \frac{12}{15} \sim \frac{8}{10} \sim \frac{4}{5}$$

Con uno solo:

$$\frac{15}{20} \sim \frac{3}{4}$$

$$\frac{12}{15} \sim \frac{3}{5}$$

$$\frac{20}{40} \sim \frac{5}{10}$$

$$\frac{20}{25} \sim \frac{4}{5}$$