Jimy de Jesus Arroyo Pacheco

DD MM AA

Numeros Racionales

Practica 17 concepto de numero racional

No 1

Escribe como nume racional cada una de las siguientes divisiones

a) $2 \div 7 = \frac{2}{7}$

b) $5 \div 9 = \frac{5}{9}$

c) $11 \div 3 = \frac{11}{3}$

d) $18 \div 13 = \frac{18}{13}$

e) $8 \div (-27) = -\frac{8}{27}$

f) $-9 \div 16 = -\frac{9}{16}$

g) $25 \div (-3) = -\frac{25}{3}$

h) $-49 \div (-22) = \frac{49}{22}$

i) $2 \div 4 = \frac{2}{4}$

j) $14 \div 20 = \frac{14}{20}$

k) $-30 \div (-45) = \frac{30}{45}$

l) $-27 \div 15 = -\frac{27}{15}$

m) $42 \div (-36) = -\frac{42}{36}$

n) $81 \div 27 = \frac{81}{27}$

o) $-700 \div 25 = -\frac{700}{25}$

Norma

Escaneado con CamScanner

2- Identifica en cada grupo de fraccionarios los numeros racionales

a) $\frac{15}{3}$, $\frac{9}{4}$, $\frac{7}{15}$, $\frac{35}{14}$, $-\frac{8}{24}$

Ent Rc Rc Rc Rc

b) $-\frac{5}{27}$, $\frac{4}{10}$, $\frac{2}{7}$, $-\frac{77}{33}$, $-\frac{36}{72}$

Rc Rc Rc Rc Rc

c) $\frac{28}{35}$, $-\frac{39}{26}$, $\frac{34}{17}$, $-\frac{38}{57}$, $\frac{43}{84}$

Rc Rc Ent Rc Rc

d) $\frac{9}{72}$, $\frac{5}{73}$, $\frac{72}{87}$, $-\frac{38}{69}$ $-\frac{57}{22}$

Rc Rc Rc Rc Rc

e) $\frac{25}{10}$, $-\frac{4}{18}$, $\frac{78}{25}$, $\frac{27}{8}$, $-\frac{75}{14}$

Rc Rc Rc Rc Rc

F) $\frac{13}{39}$, $\frac{12}{75}$, $-\frac{9}{14}$, $\frac{23}{46}$, $-\frac{34}{39}$

Rc Rc Rc Rc Rc

Escaneado con CamScanner

DD MM AA

g) $-\frac{32}{75}$, $\frac{8}{27}$, $\frac{15}{9}$, $-\frac{36}{49}$, $\frac{42}{35}$

Rc Rc Rc Rc Rc

h) $\frac{34}{77}$, $-\frac{75}{36}$, $\frac{77}{4}$, $\frac{19}{38}$, $-\frac{4}{7}$

Ent Rc Rc Rc Rc

i) $\frac{28}{9}$, $\frac{35}{48}$, $-\frac{25}{100}$, $\frac{14}{3}$, $\frac{20}{18}$

Rc Rc Rc Rc Rc

J) $-\frac{72}{39}$, $\frac{25}{45}$, $-\frac{28}{9}$, $\frac{75}{40}$, $-\frac{73}{29}$

Rc Rc Rc Rc Rc

Norma

Escaneado con CamScanner

DD MM AA

2) Hallar el Factor de amplificación y el termino que Falta para obtener una Fraccion equivalente

$$-\frac{7^{\times 9}}{4^{\times 9}} = -\frac{\boxed{63}}{36}$$

e) $\frac{11^{\times 8}}{9^{\times 8}} = \frac{\boxed{88}}{72}$

d) $-\frac{2^{\times 3}}{15^{\times 3}} = \frac{\boxed{6}}{45}$

Escaneado con CamScanner

Practica 18

Nº 7

Halla cinco fracciones equivalentes con el numero racional dado en donde los factores de amplificación sean 3, 7, 9, 12 y 27

a) $\frac{3}{5}$

b) $\frac{3}{4}$

c) $-\frac{70}{13}$

d) $-\frac{77}{5}$

a)	3	7	9	12	27
$\frac{3}{5}$	$\frac{9}{15}$	$\frac{27}{35}$	$\frac{27}{45}$	$\frac{36}{60}$	$\frac{63}{105}$

b)	3	7	9	12	27
$\frac{3}{4}$	$\frac{9}{12}$	$\frac{27}{28}$	$\frac{27}{36}$	$\frac{36}{48}$	$\frac{63}{84}$

Norma

Escaneado con CamScanner

c)	3	7	9	72	27
$-\frac{70}{73}$	$-\frac{30}{39}$	$-\frac{70}{91}$	$-\frac{90}{117}$	$-\frac{720}{756}$	$-\frac{270}{273}$

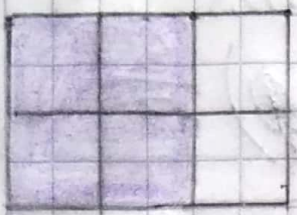
d)	3	7	9	72	27
$-\frac{77}{5}$	$-\frac{33}{75}$	$-\frac{77}{35}$	$-\frac{99}{45}$	$-\frac{132}{60}$	$-\frac{231}{105}$

Escaneado con CamScanner

Practica 19

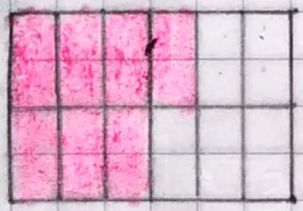
Nº 3
Escribe la fracción representada en cada una de las siguientes graficas

a)



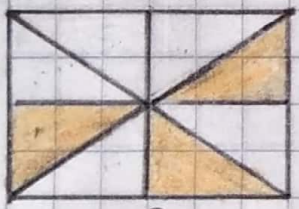
$\frac{4}{6}$

b)



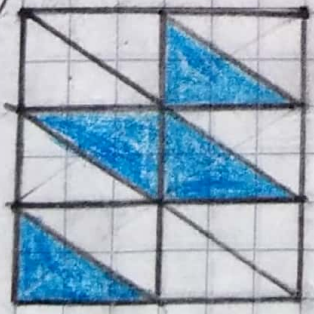
$\frac{7}{12}$

c)



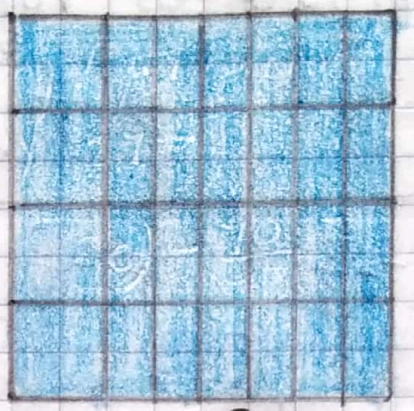
$\frac{3}{8}$

d)



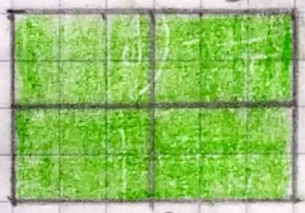
$\frac{4}{12}$

e)



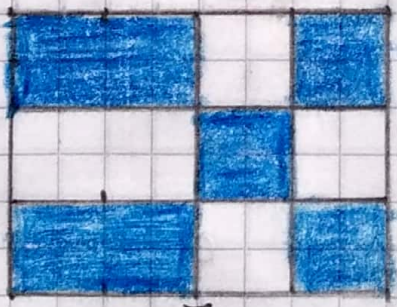
0

f)



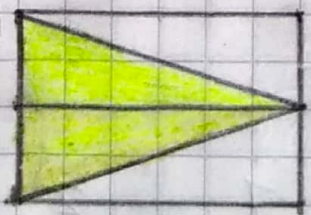
0

g)



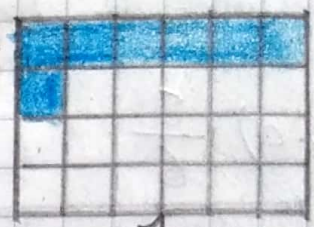
$\frac{7}{12}$

h)



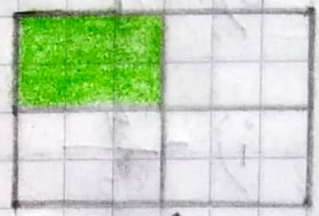
$\frac{2}{4}$

i)



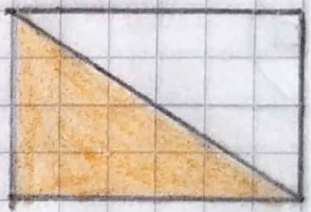
$\frac{7}{24}$

j)



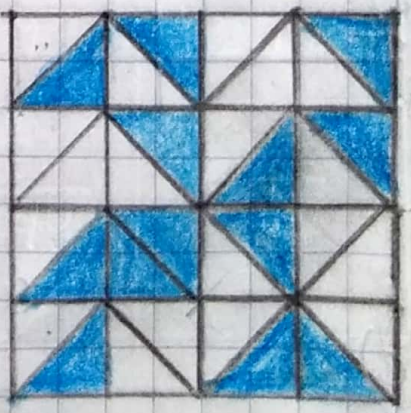
$\frac{1}{4}$

k)



$\frac{1}{2}$

l)



$\frac{73}{64}$

Norma

Escaneado con CamScanner

DD MM AA

Practica 20

N=7

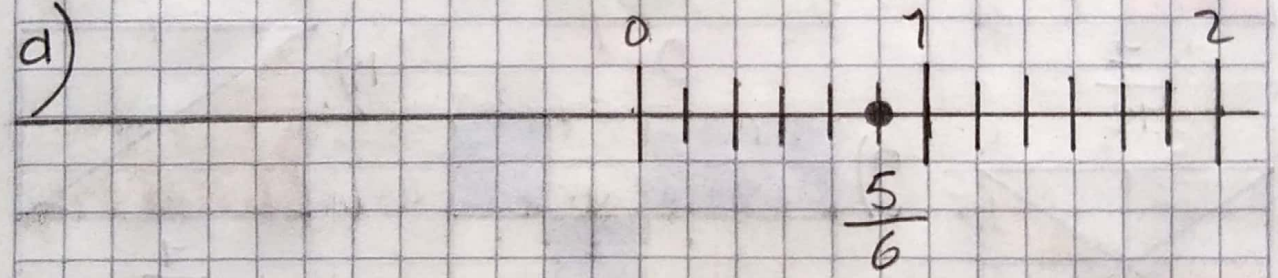
Representa en la recta numerica cada uno de los siguientes racionales

a) $\frac{5}{6}$ c) $\frac{12}{4}$ e) $\frac{9}{2}$ g) $\frac{8}{3}$

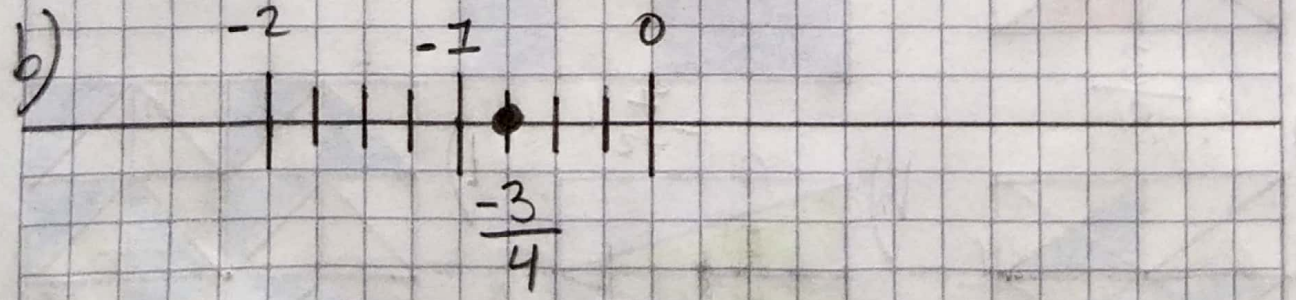
b) $-\frac{3}{4}$ d) $-\frac{17}{12}$ F) $-\frac{8}{4}$ h) $\frac{1}{2}$

i) $-\frac{4}{3}$ J) $\frac{0}{12}$

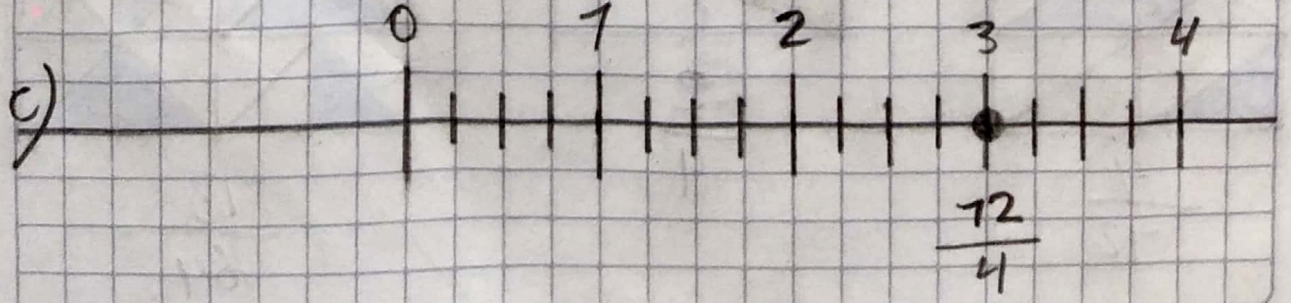
a)



b)

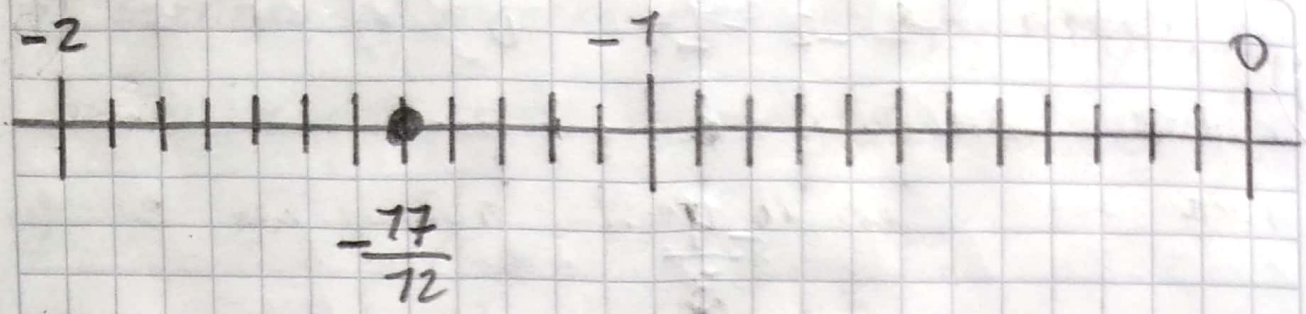


c)



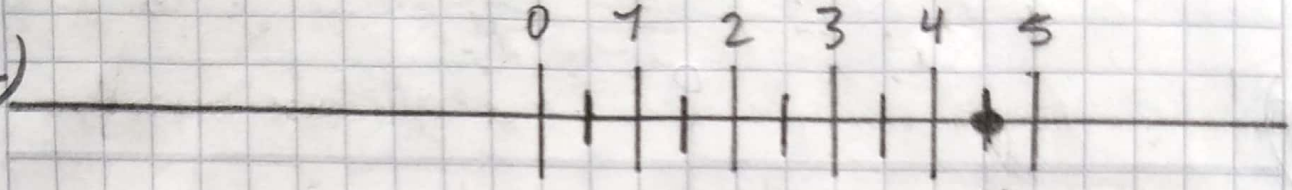
Escaneado con CamScanner

d)



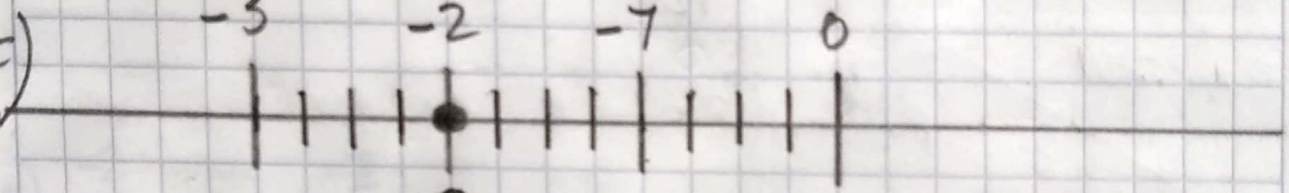
$-\frac{17}{12}$

e)



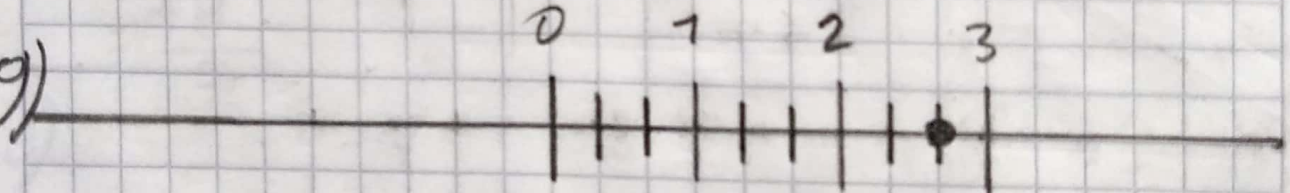
$\frac{9}{2}$

f)



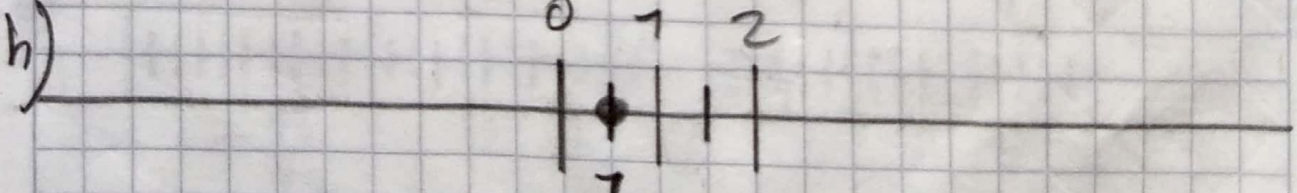
$-\frac{8}{4}$

g)



$\frac{8}{3}$

h)



$\frac{1}{2}$

Escaneado con CamScanner

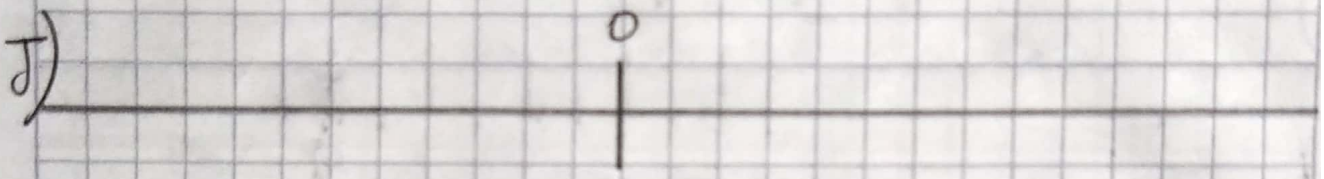
DD MM AA

i)



$-\frac{4}{3}$

j)

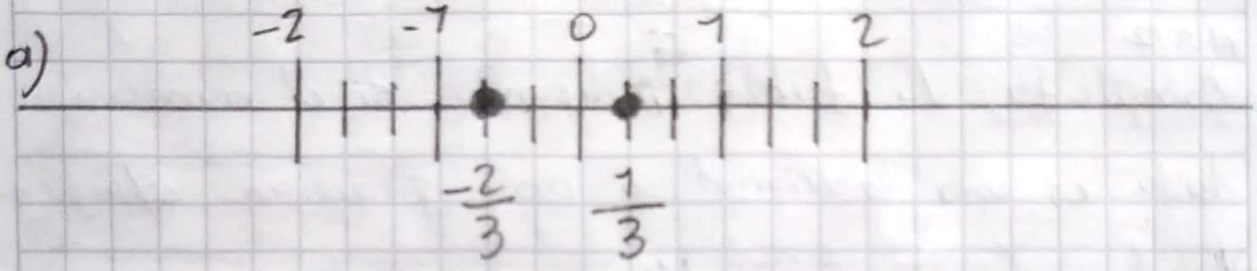


$\frac{0}{72}$

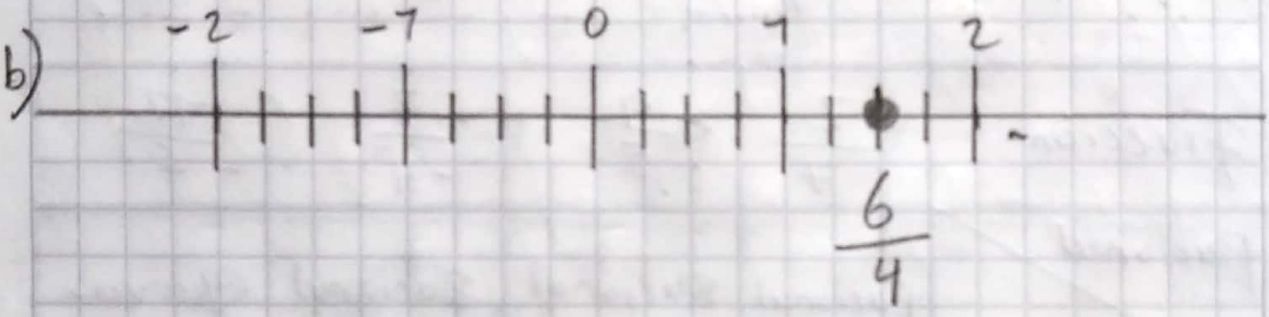
Escaneado con CamScanner

2) Escribe el numero racional que representa en cada recta numerica.

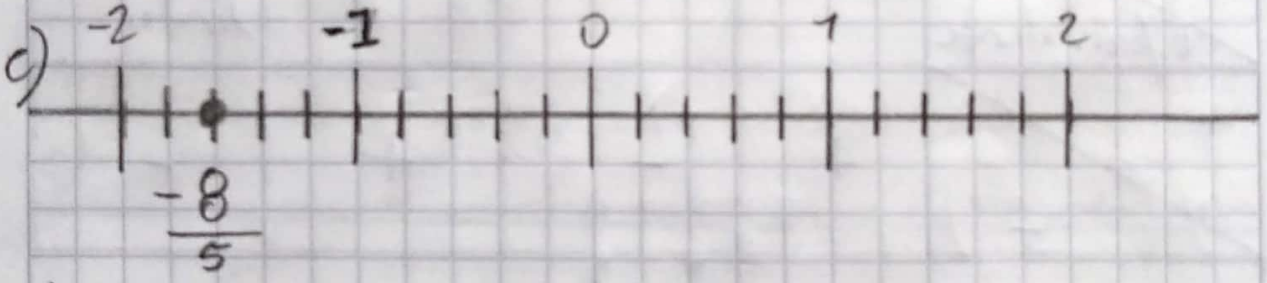
a)



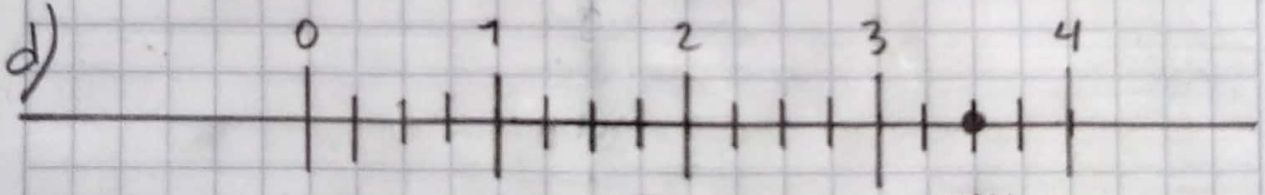
b)



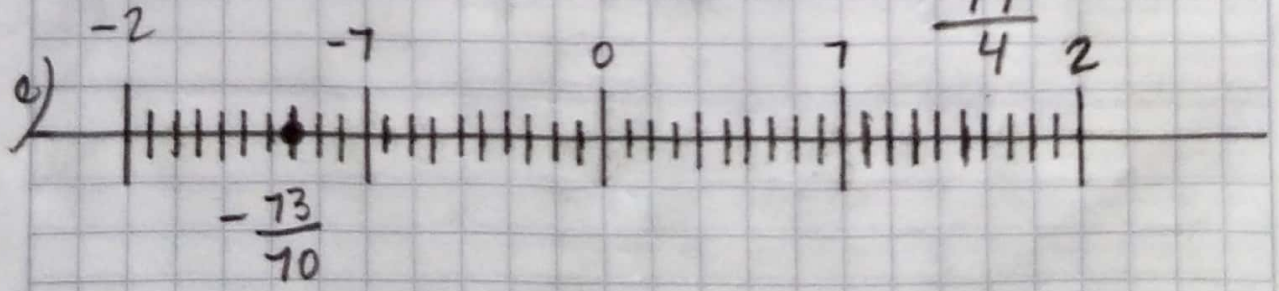
c)

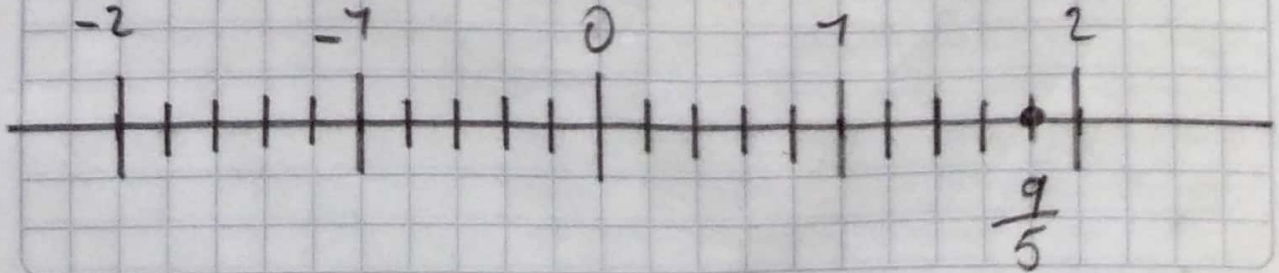


d)



e)





Escaneado con CamScanner

DD MM AA

Concepto y representación grafica de numeros racionales

Nº 1

Completa la tabla indicando si el numero dado es una racional o una Fracción equivalente y si es positivo o negativo

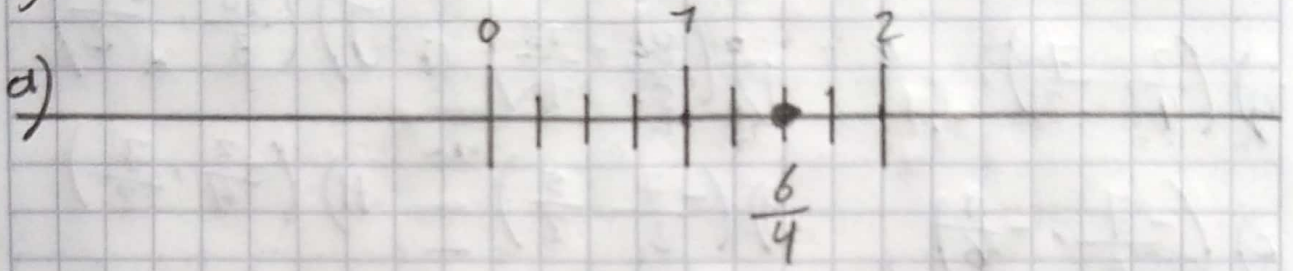
Fraccion	$\frac{2}{7}$	$-\frac{9}{5}$	$\frac{-3}{-4}$	$\frac{12}{-6}$
Racional / Equivalente	Racional	Racional	Racional	Equivalente
+ / -	+	-	+	-

Escaneado con CamScanner

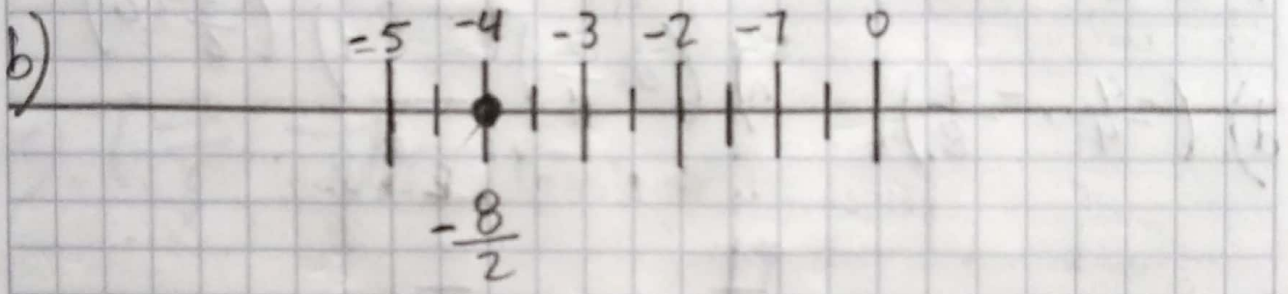
2) Representa sobre la recta numerica las siguientes Fracciones

a) $\frac{6}{4}$ b) $\frac{-8}{2}$ c) $\frac{7}{3}$ d) $\frac{9}{3}$

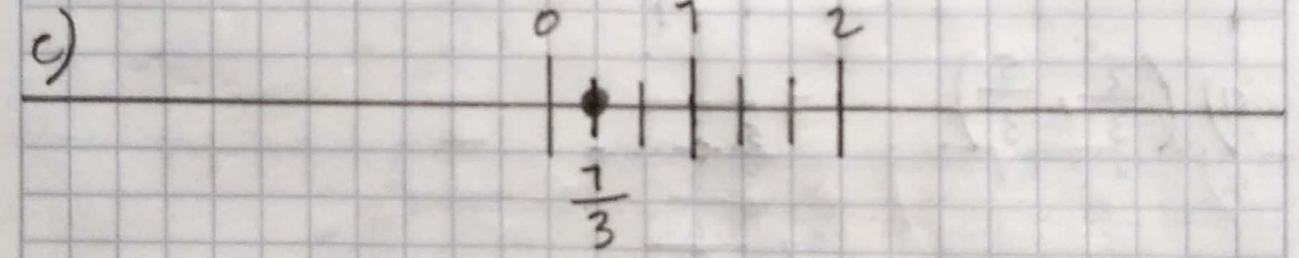
a)



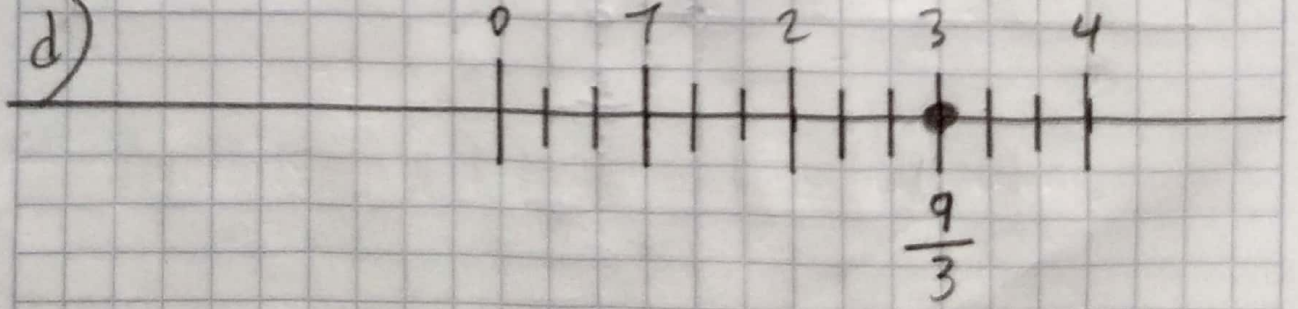
b)



c)



d)



Escaneado con CamScanner

El plano cartesiano

Practica 27

a) $\left(\frac{2}{3}, \frac{5}{3}\right)$

b) $\left(\frac{3}{4}, \frac{7}{2}\right)$

c) $\left(-\frac{7}{6}, -\frac{7}{6}\right)$

d) $\left(-\frac{9}{4}, -\frac{9}{8}\right)$

e) $\left(-\frac{5}{2}, \frac{5}{2}\right)$

f) $\left(\frac{8}{5}, -\frac{73}{10}\right)$

g) $\left(-\frac{7}{3}, \frac{5}{2}\right)$

h) $\left(0, \frac{3}{4}\right)$

i) $\left(\frac{7}{8}, -4\right)$

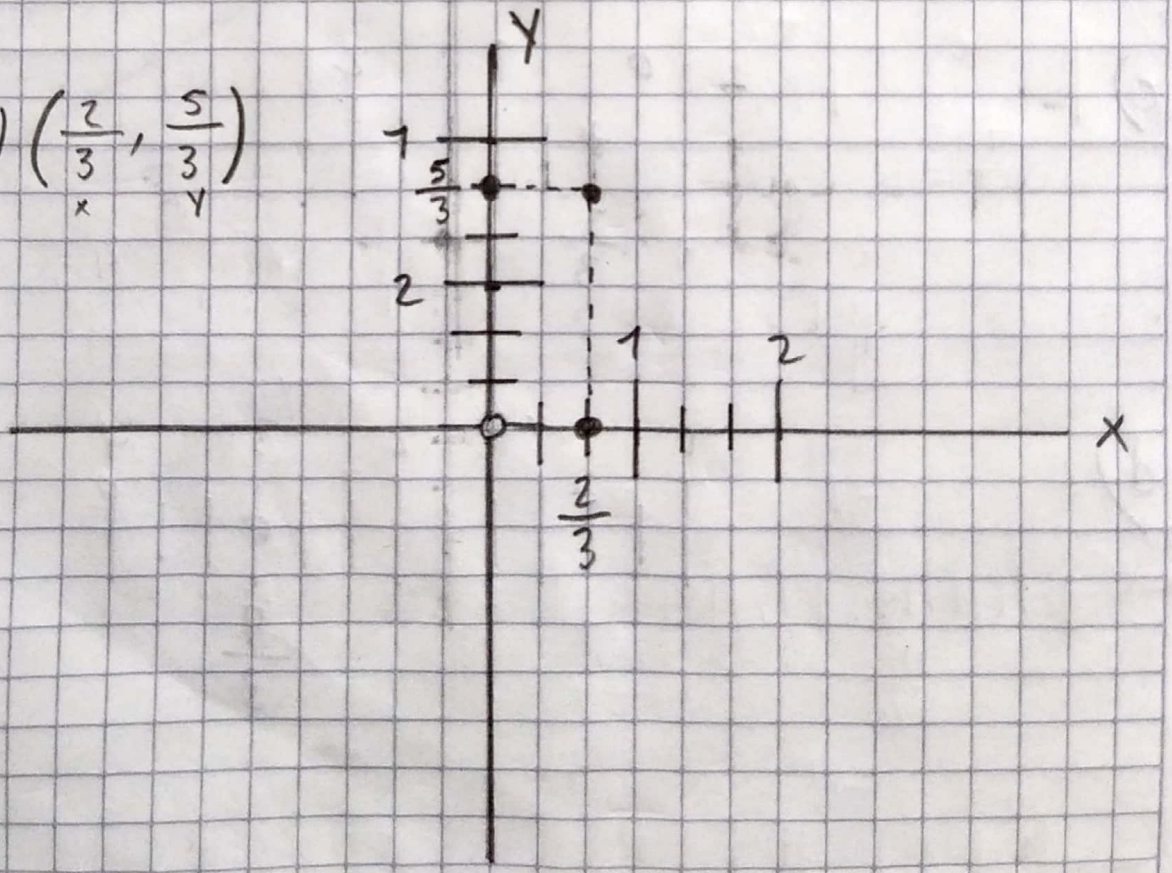
j) $\left(\frac{10}{3}, -\frac{7}{2}\right)$

k) $\left(-\frac{3}{4}, \frac{7}{2}\right)$

l) $\left(\frac{5}{6}, 0\right)$

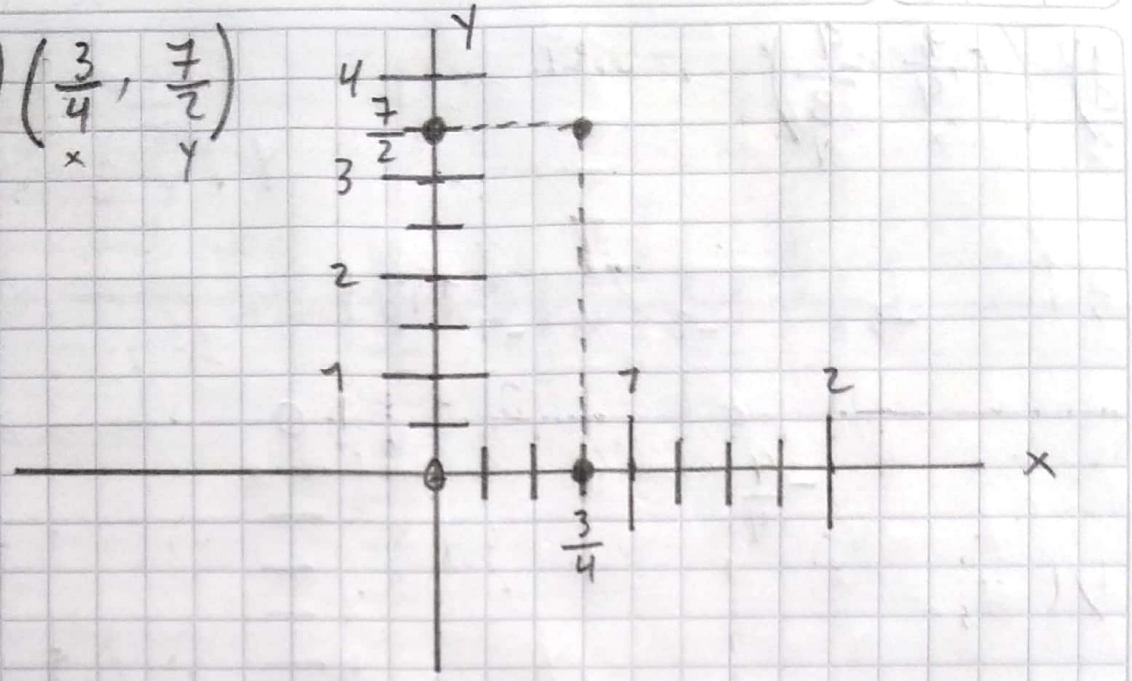
a) $\left(\frac{2}{3}, \frac{5}{3}\right)$

x y

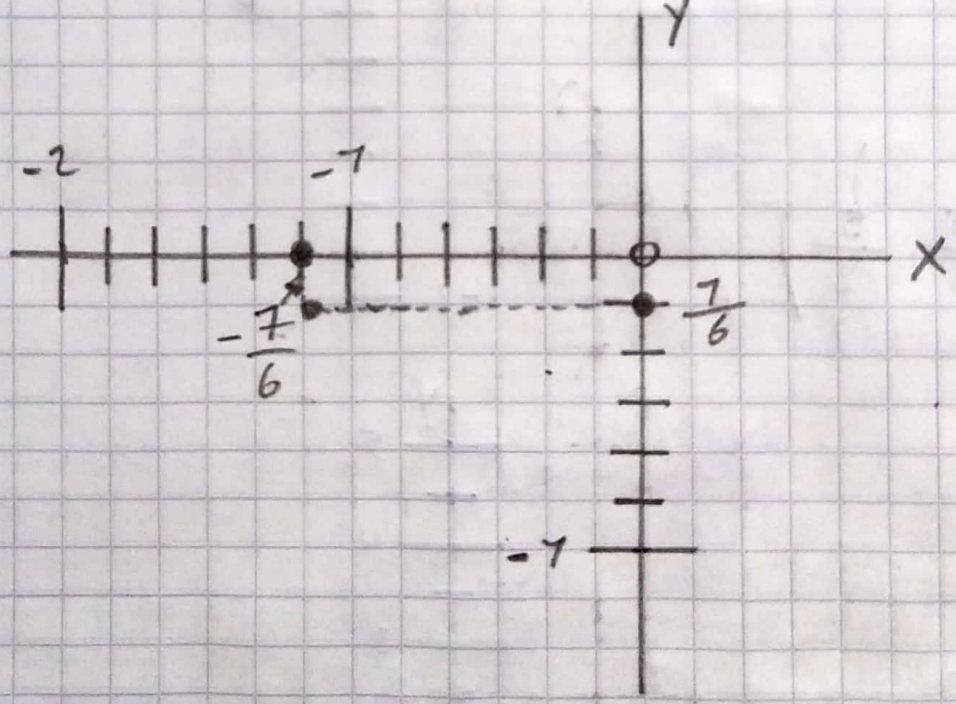


Escaneado con CamScanner

b) $\left(\underset{x}{\frac{3}{4}}, \underset{y}{\frac{7}{2}}\right)$



c) $\left(\underset{x}{-\frac{7}{6}}, \underset{y}{-\frac{7}{6}}\right)$

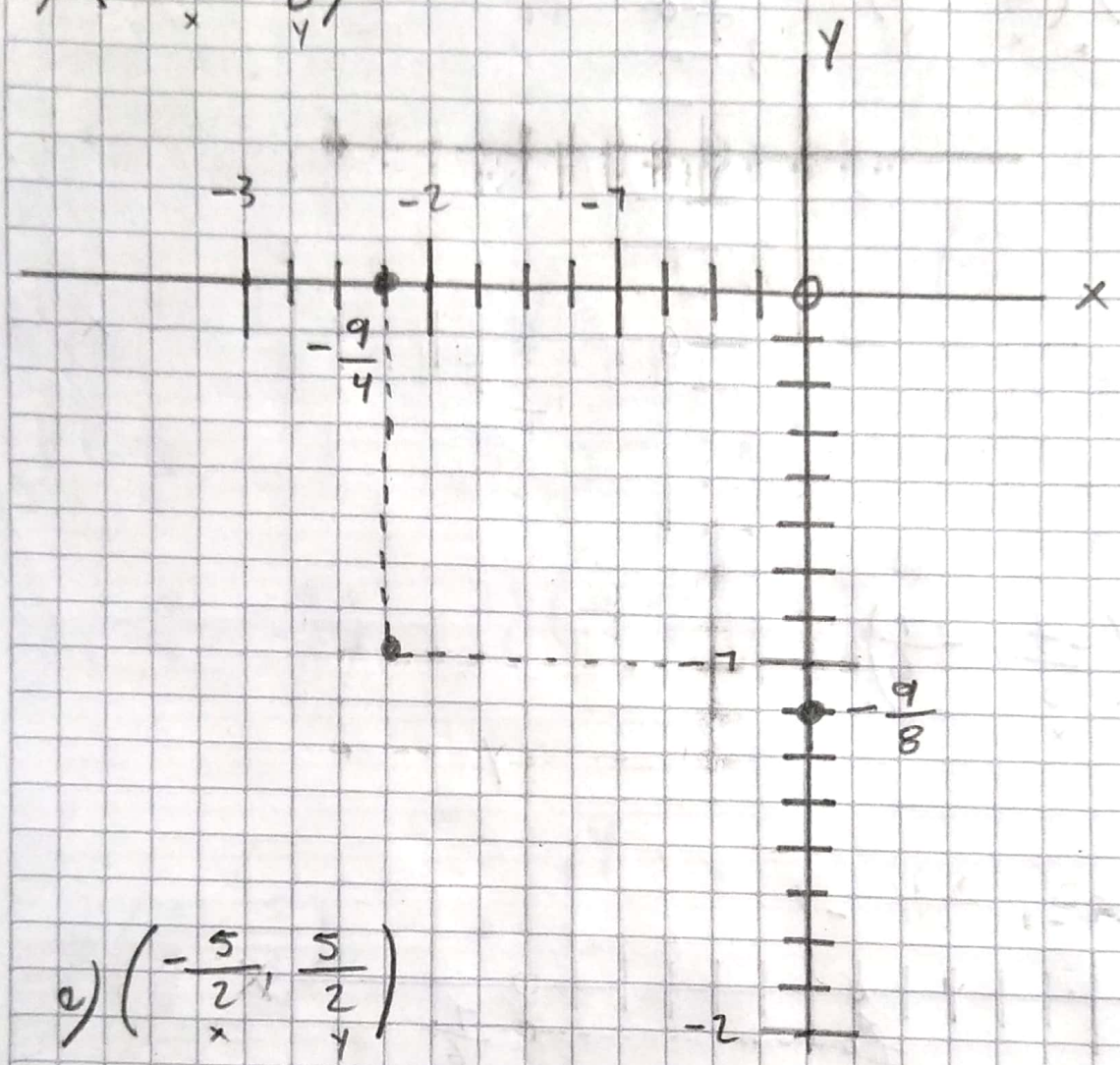


Norma

Escaneado con CamScanner

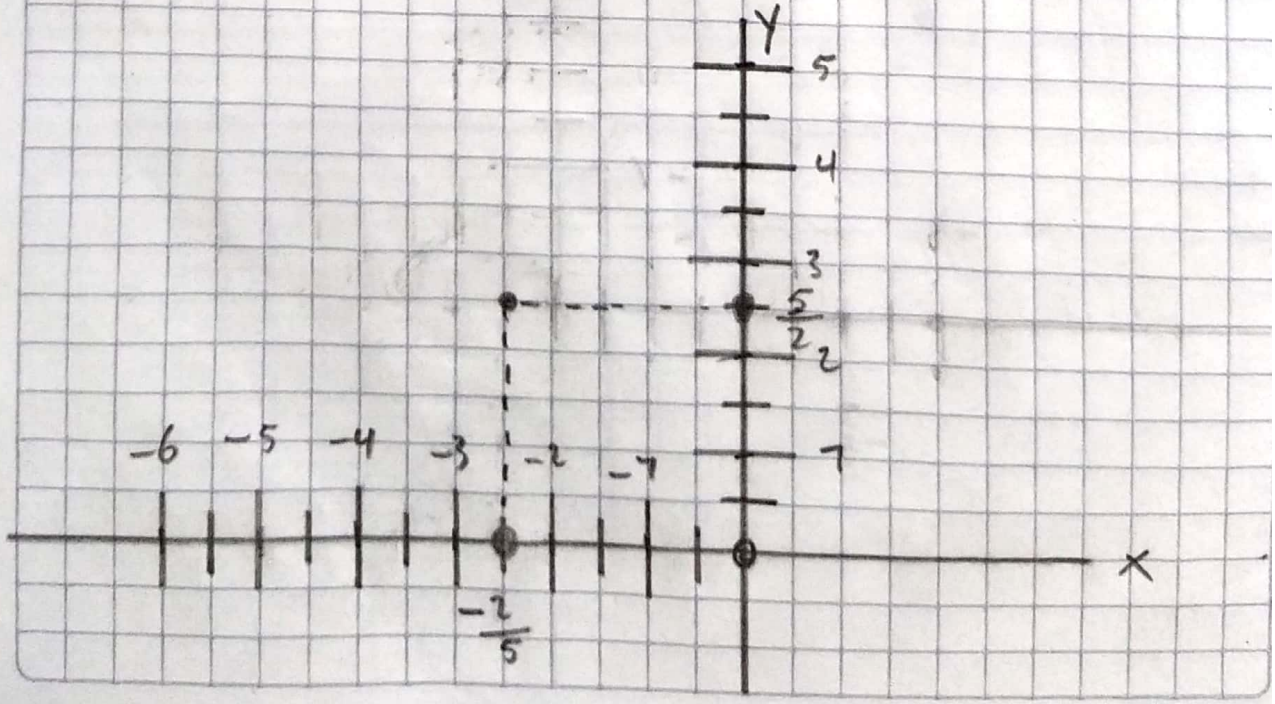
d) $\left(-\frac{9}{4}, -\frac{9}{8}\right)$

x y



e) $\left(-\frac{5}{2}, \frac{5}{2}\right)$

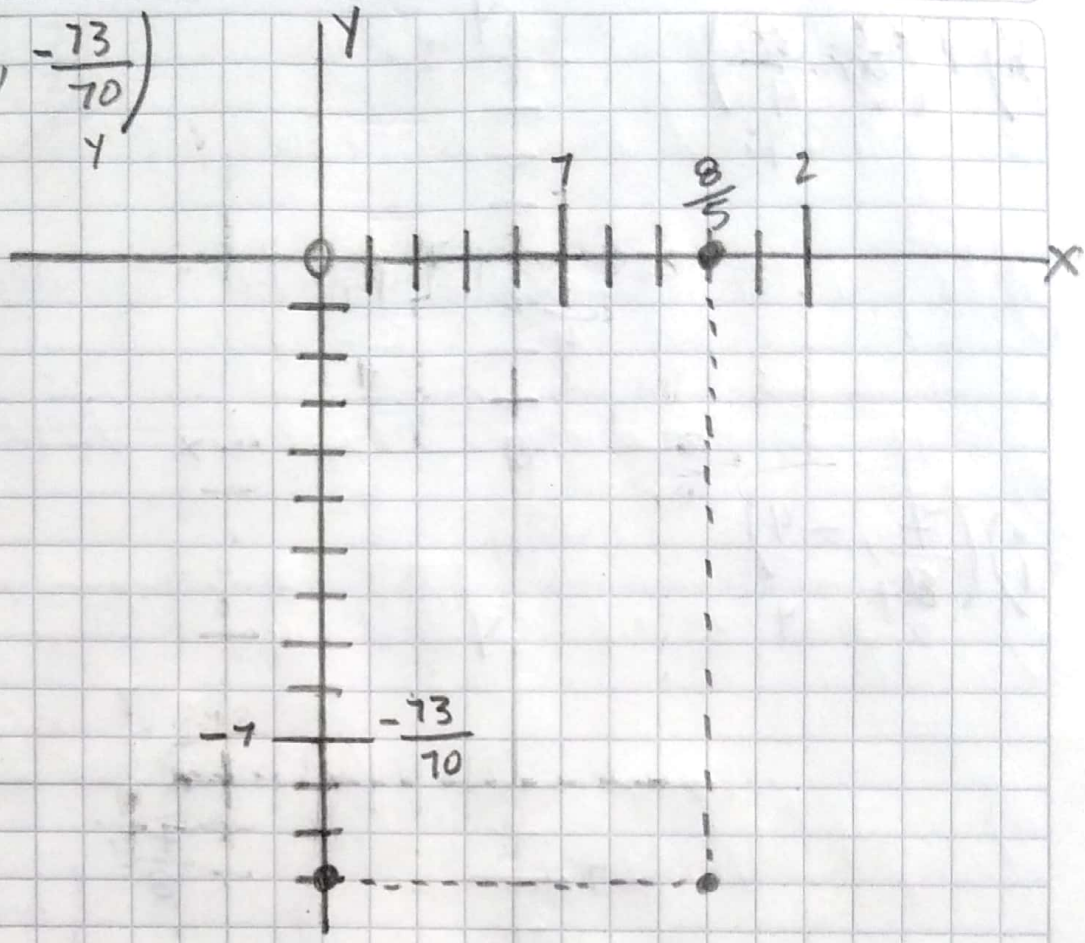
x y



Escaneado con CamScanner

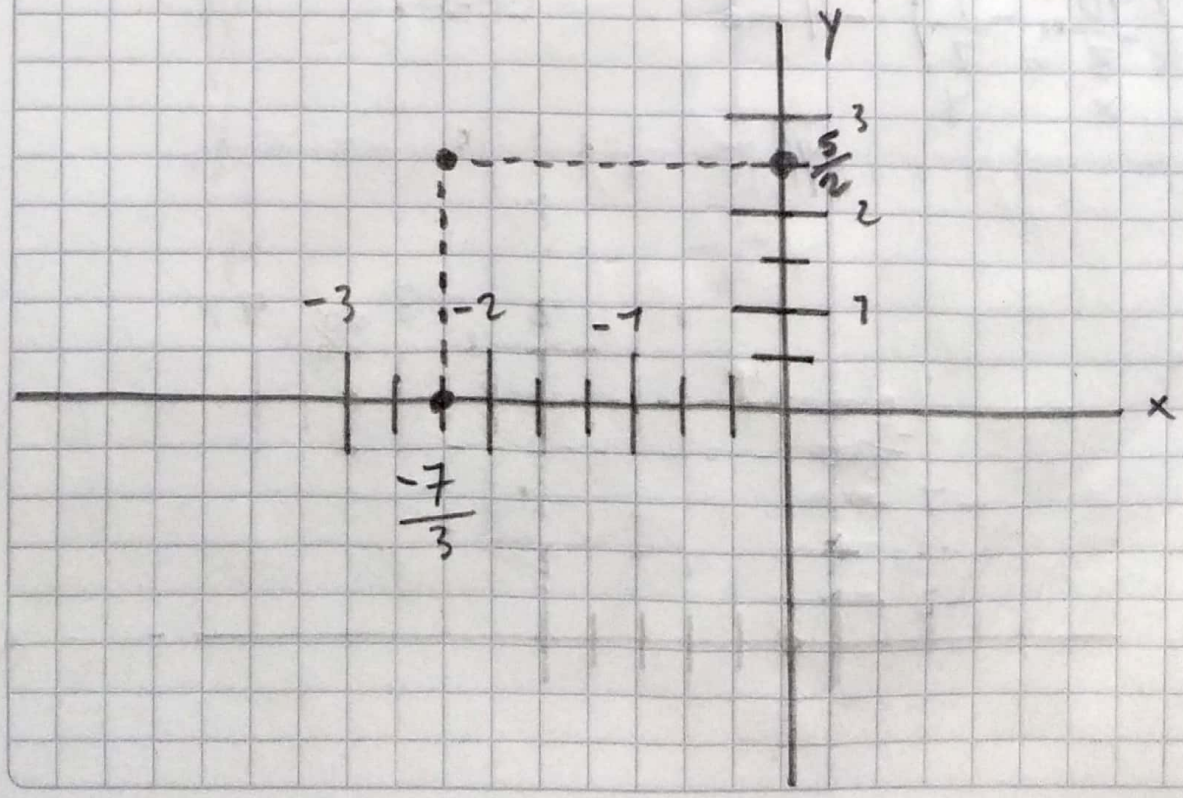
F) $\left(\frac{8}{5}, \frac{-73}{70}\right)$

x y



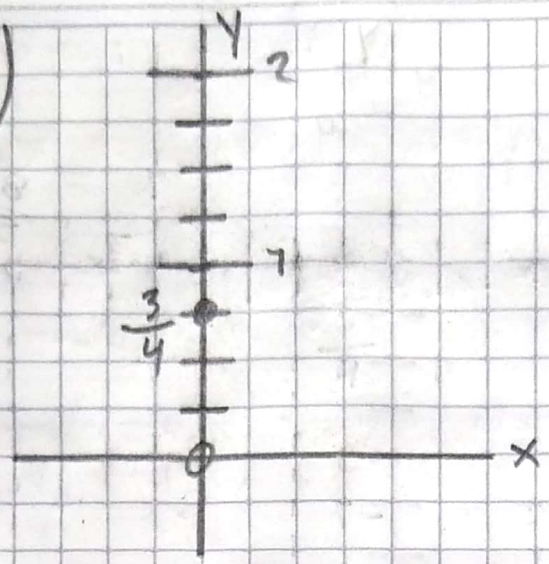
g) $\left(-\frac{7}{3}, \frac{5}{2}\right)$

x y

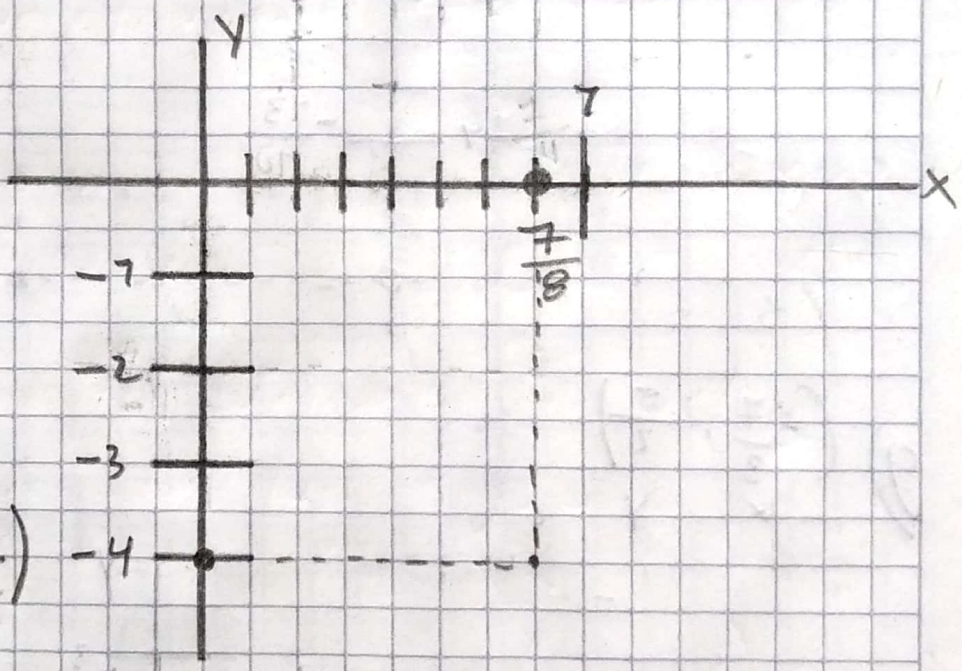


Escaneado con CamScanner

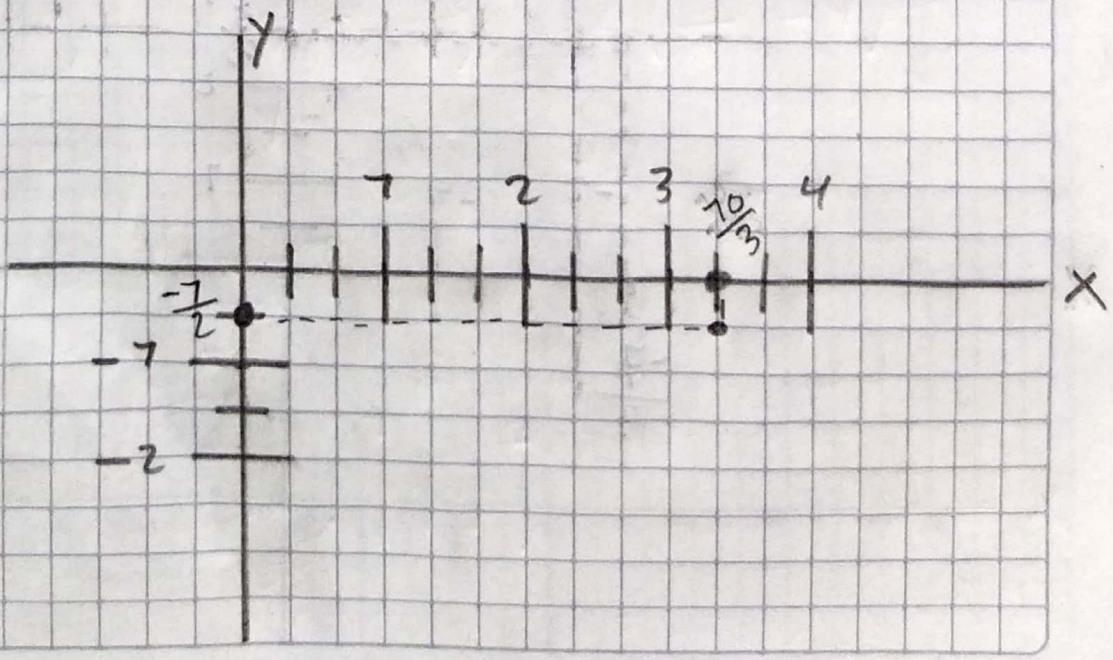
h) $\left(\underset{x}{0}, \underset{y}{\frac{3}{4}}\right)$



i) $\left(\underset{x}{\frac{7}{8}}, \underset{y}{-4}\right)$



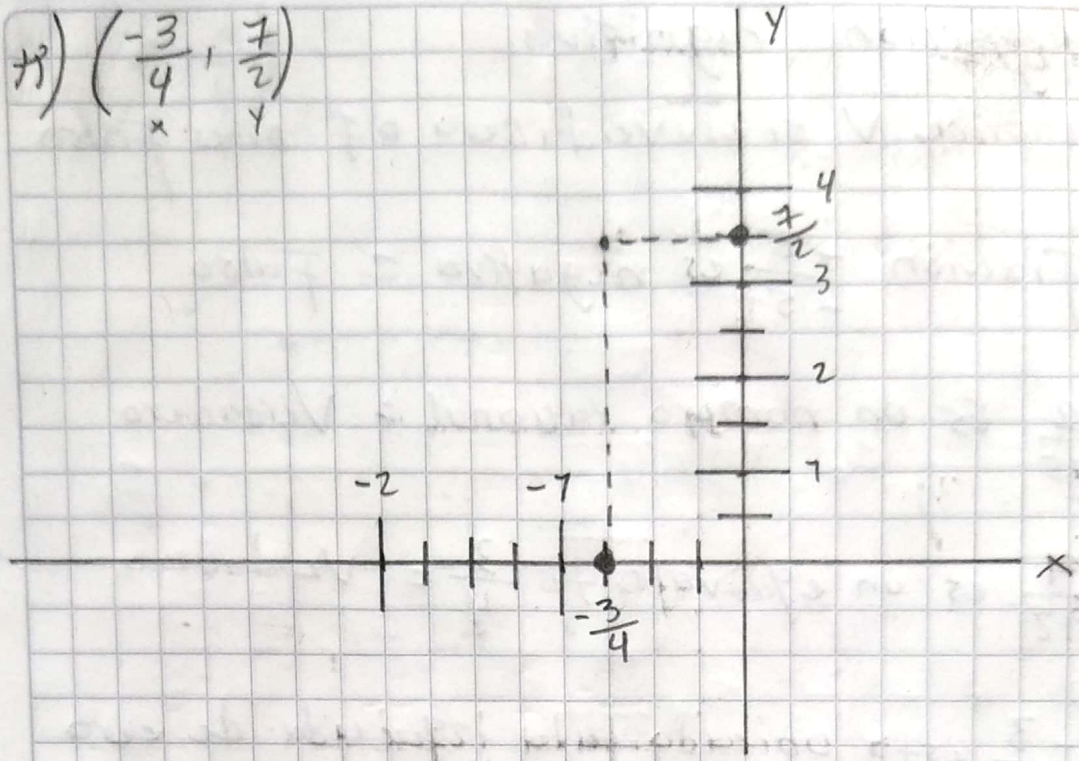
J) $\left(\underset{x}{\frac{10}{3}}, \underset{y}{-\frac{7}{2}}\right)$



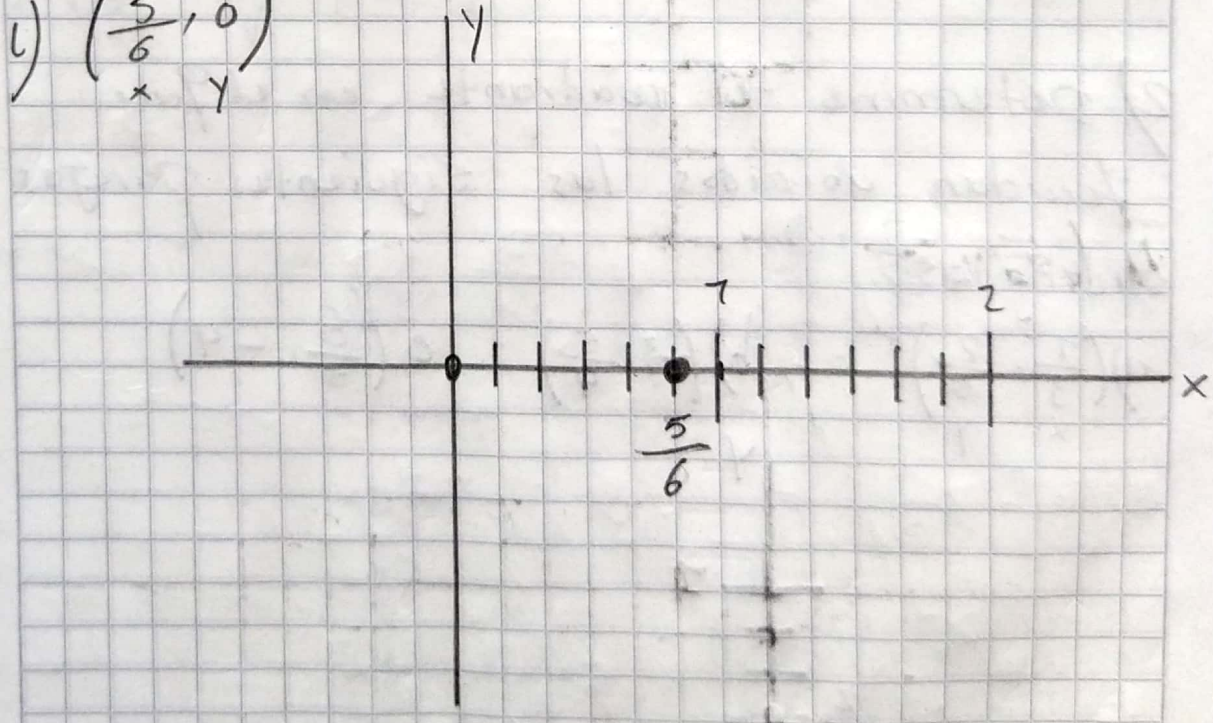
Escaneado con CamScanner

DD MM AA

h) $\left(\frac{-3}{4}, \frac{7}{2}\right)$
$\quad x \quad y$



i) $\left(\frac{5}{6}, 0\right)$
$\quad x \quad y$



Norma

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Integración cognitiva

1- Escribe V si es verdadero o F si es falso

a) la Fracción $\frac{-2}{-5}$ es negativa = Falso

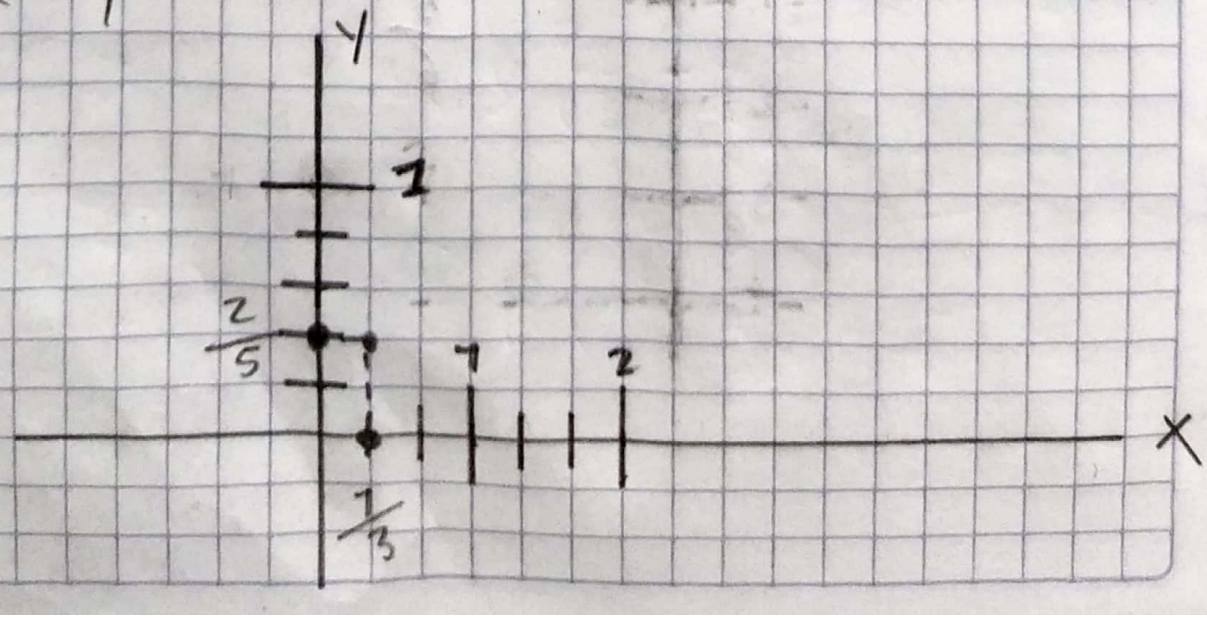
b) $\frac{12}{15}$ es un numero racional = Verdadero

c) $\frac{-9}{-12}$ es un equivalente $\frac{3}{4}$ = Verdadero

d) $\frac{-3}{-4}$ esta ubicado ala izquierda de cero
Verdadero

2) Determine el cuadrante en el que quedan ubicados las siguientes parejas ordenadas:

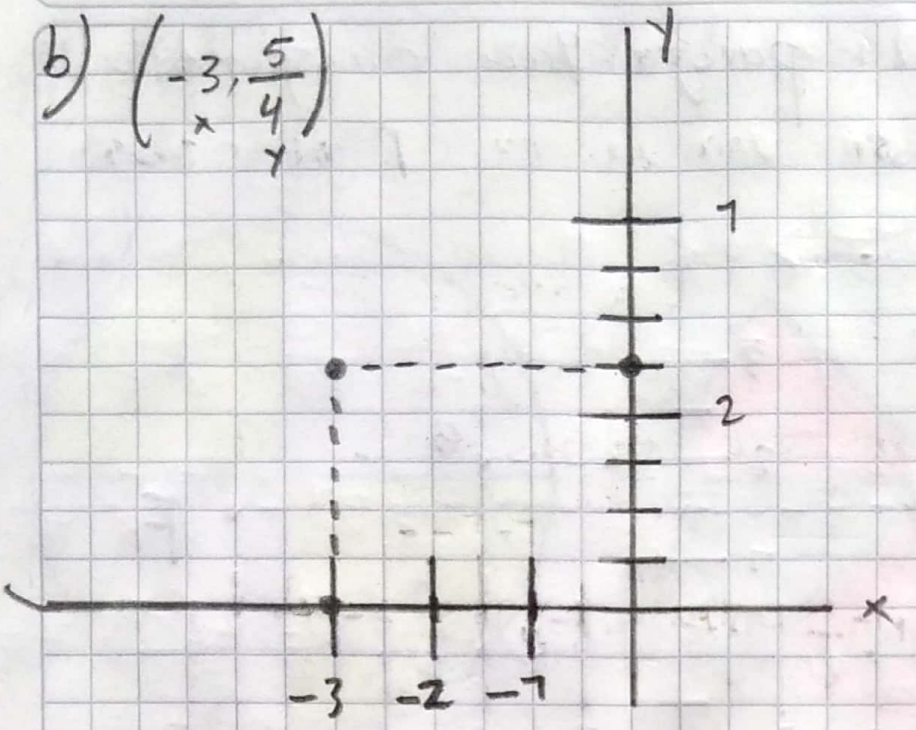
a) $\left(\frac{1}{3}, \frac{2}{5}\right)$ b) $\left(-3, \frac{5}{4}\right)$ c) $\left(\frac{8}{5}, -4\right)$



Escaneado con CamScanner

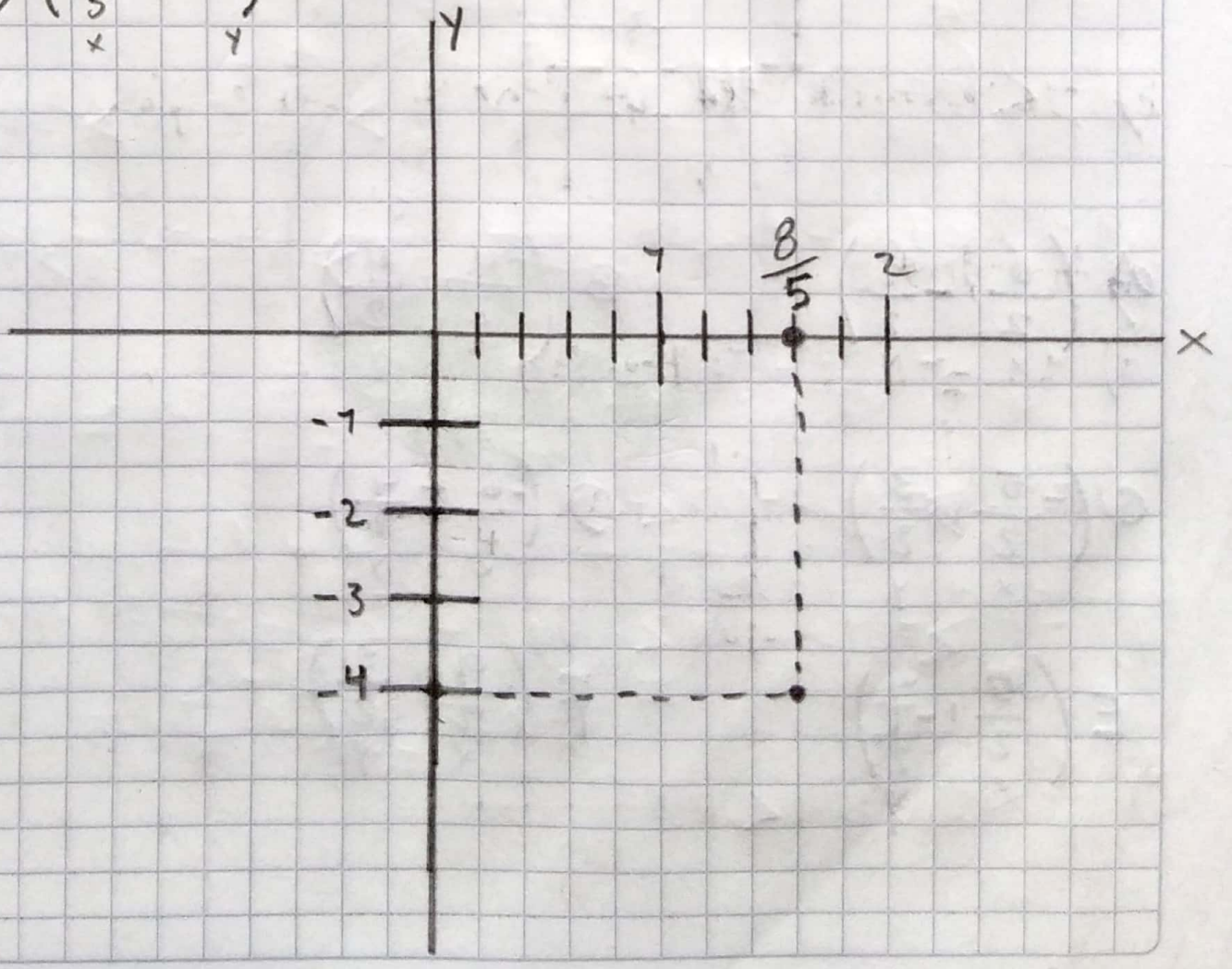
b) $\left(-3, \frac{5}{4}\right)$

x y



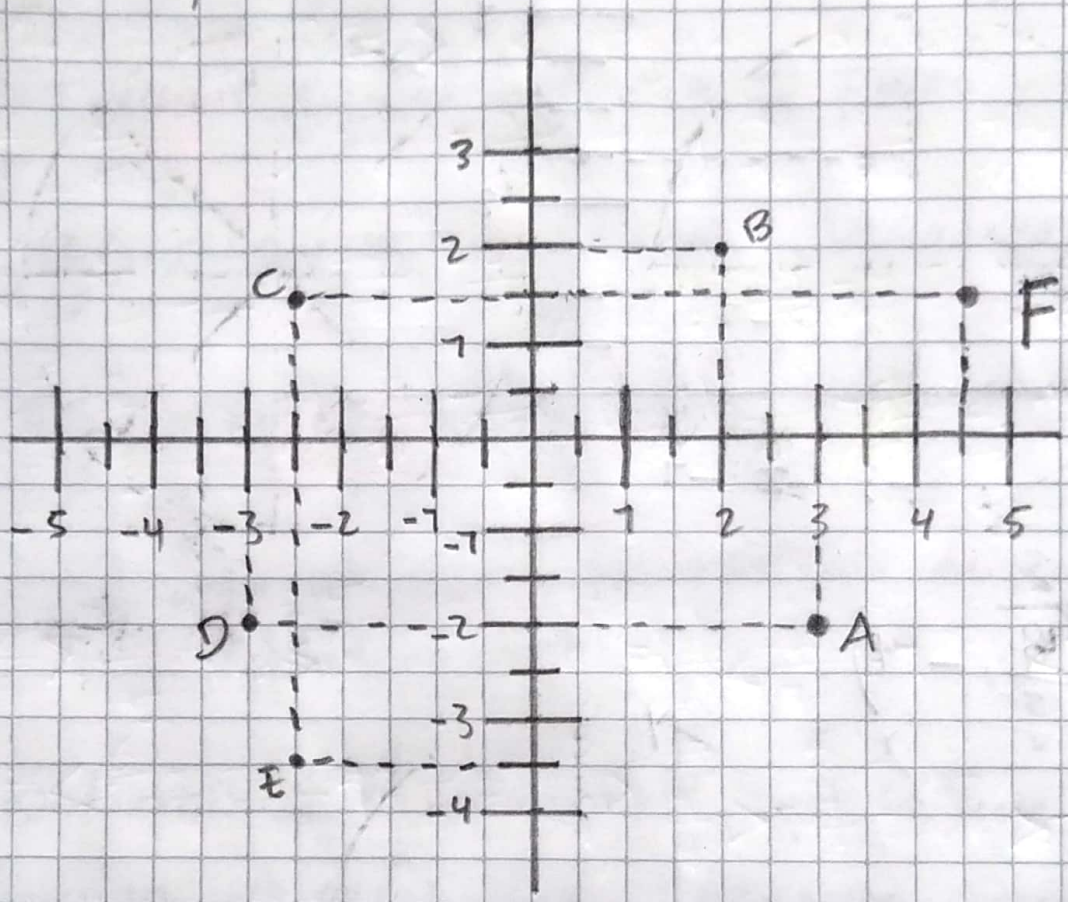
c) $\left(\frac{8}{5}, -4\right)$

x y



Escaneado con CamScanner

3) Determina la pareja que corresponda a cada punto



$A\left(\underset{x}{\frac{6}{2}}, \underset{y}{-\frac{4}{2}}\right)$

$B\left(\underset{x}{\frac{4}{2}}, \underset{y}{\frac{4}{2}}\right)$

$C\left(\underset{x}{-\frac{5}{2}}, \underset{y}{\frac{3}{2}}\right)$

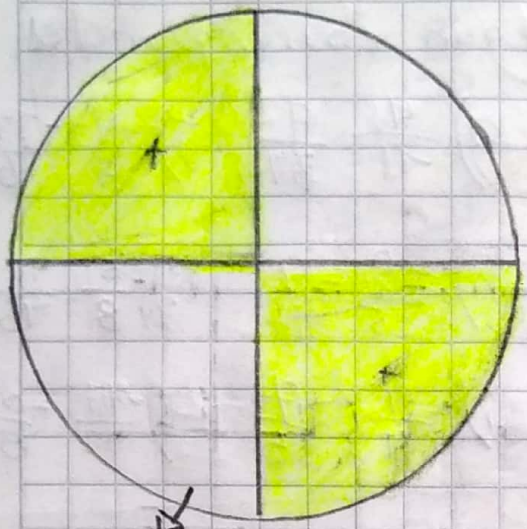
$D\left(\underset{x}{\frac{-6}{2}} \; \underset{y}{-\frac{4}{2}}\right)$

$E\left(\underset{x}{-\frac{5}{2}}, \underset{y}{-\frac{7}{2}}\right)$

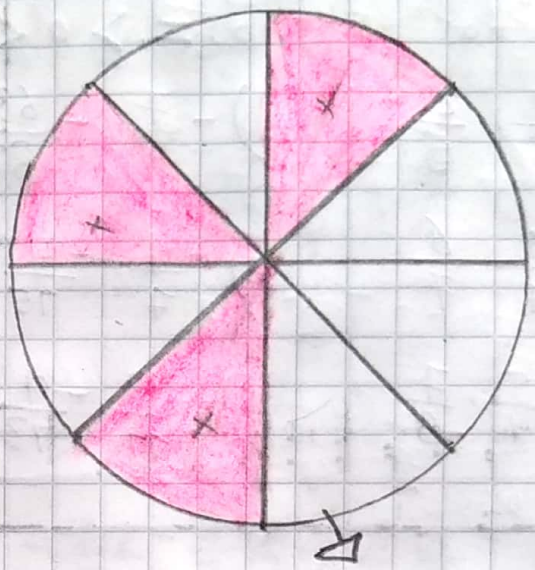
$F\left(\underset{x}{\frac{9}{2}}, \underset{y}{\frac{3}{2}}\right)$

Escaneado con CamScanner

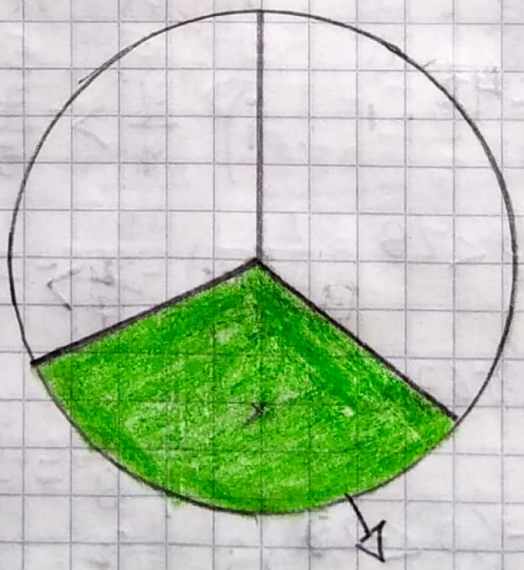
4) Escriba el racional que determina cada dibujo



$\frac{2}{4}$



$\frac{3}{8}$



$\frac{1}{3}$

Escaneado con CamScanner

Practica 22

1) Relaciona cada una de las fracciones con los signos =, > o < segun corresponda

a) $\frac{2}{3}, \frac{2}{5}$

b) $\frac{3}{7}, \frac{6}{7}$

c) $-\frac{5}{4}, \frac{7}{8}$

d) $-\frac{7}{9}, -\frac{63}{87}$

e) $-\frac{4}{7}, -\frac{4}{75}$

f) $-\frac{8}{77}, -\frac{9}{73}$

g) $\frac{4}{17}, \frac{9}{37}$

h) $-\frac{8}{25}, -\frac{4}{77}$

i) $\frac{4}{4}, -\frac{7}{5}$

j) $-\frac{9}{7}, -\frac{77}{6}$

k) $\frac{5}{8}, \frac{70}{76}$

l) $-\frac{77}{77}, -\frac{85}{55}$

a) $\frac{2}{3} < \frac{2}{5} = 70 > 6$

b) $\frac{3}{7} < \frac{6}{7} = 21 < 42$

c) $-\frac{5}{4} < \frac{7}{8} = -40 < 28$

d) $-\frac{7}{9} = -\frac{63}{87} = -567 = 567$

e) $-\frac{4}{7} > -\frac{4}{75} = -60 < -28$

f) $-\frac{8}{77} < -\frac{9}{73} = -704 < -99$

g) $\frac{4}{17} < \frac{9}{37} = 124 < 153$

h) $-\frac{8}{25} < -\frac{4}{77} = -736 < -100$

i) $\frac{4}{4} > -\frac{7}{5} = 20 > -28$

j) $-\frac{9}{7} > -\frac{77}{6} = -54 > 77$

k) $\frac{5}{8} = \frac{70}{76} = 80 = 80$

l) $-\frac{77}{77} = -\frac{85}{55} =$

$= -935 = 935$

Escaneado con CamScanner

2) ordena de menor a mayor los siguientes numeros racionales

a) $\frac{4}{5}, -\frac{2}{3}, \frac{7}{2} - \frac{9}{10}$

b) $-\frac{7}{12}, -\frac{9}{4}, -\frac{73}{5}, -\frac{77}{2}$

c) $-\frac{7}{3}, -\frac{7}{4}, -\frac{9}{2}, -\frac{77}{6}$

d) $\frac{5}{2}, -\frac{7}{3}, \frac{3}{4}, -\frac{5}{6}$

---

a) $\frac{4}{5}, -\frac{2}{3}, \frac{7}{2} - \frac{9}{10} = \frac{4}{30}, -\frac{2}{30}, \frac{7}{30} - \frac{9}{30}$

$= \frac{24}{30} - \frac{20}{30} \quad \frac{105}{30} - \frac{27}{30} = -\frac{9}{10} < -\frac{2}{3} < \frac{4}{5} < \frac{7}{2}$

b) $-\frac{7}{12}, -\frac{9}{4} - \frac{73}{5}, -\frac{77}{2} = -\frac{7}{60} - \frac{9}{60} - \frac{73}{60} - \frac{77}{60} =$

$= -\frac{35}{60} - \frac{735}{60} - \frac{756}{60} - \frac{330}{60} = -\frac{77}{2} < -\frac{73}{5} < -\frac{9}{4} < -\frac{7}{12}$

c) $-\frac{7}{3}, -\frac{7}{4}, -\frac{9}{2}, -\frac{77}{6} = -\frac{7}{12}, -\frac{7}{12} - \frac{9}{12}, -\frac{77}{12} =$

$= -\frac{4}{12} - \frac{21}{12} - \frac{54}{12} - \frac{22}{12} = -\frac{9}{2} < -\frac{77}{6} < -\frac{7}{4} < -\frac{7}{12}$

d) $\frac{5}{2}, -\frac{7}{3}, \frac{4}{9} - \frac{5}{6} = \frac{5}{18}, -\frac{7}{18}, \frac{4}{18} - \frac{5}{18} =$

$= \frac{45}{18}, -\frac{42}{18}, \frac{8}{18} - \frac{15}{18} = -\frac{7}{3} < -\frac{5}{6} < \frac{4}{9} < \frac{5}{2}$

Escaneado con CamScanner

3) ordena en forma ducendente los siguientes racionales

a) $\frac{5}{3}, -\frac{5}{2}, \frac{5}{8}, -\frac{5}{12}$

b) $\frac{-72}{5}, \frac{77}{9}, \frac{28}{15}, -\frac{76}{3}$

c) $-\frac{3}{4}, \frac{5}{2}, -\frac{3}{8}, \frac{77}{6}$

d) $\frac{7}{6}, -\frac{7}{2}, \frac{9}{4}, \frac{15}{8}$

e) $\frac{7}{4}, \frac{19}{12}, \frac{13}{9}, \frac{22}{23}$

f) $-\frac{77}{8}, -\frac{47}{4}, -\frac{23}{2}, -\frac{37}{16}$

g) $\frac{7}{10}, \frac{-8}{5}, -\frac{3}{2}, -\frac{7}{3}$

h) $-\frac{9}{20}, -\frac{7}{4}, -\frac{9}{5}, -\frac{27}{2}$

---

a) $\frac{5}{3}, -\frac{5}{2}, \frac{5}{8}, -\frac{5}{12} = \frac{5}{24}, -\frac{5}{24}, \frac{5}{24}, -\frac{5}{24} =$

$= \frac{40}{24}, -\frac{60}{24}, \frac{75}{24}, -\frac{10}{24} = \frac{5}{3} > \frac{5}{8} > -\frac{5}{12} > \frac{5}{2}$

b) $-\frac{72}{5}, \frac{77}{9}, \frac{28}{15}, -\frac{76}{3} = -\frac{108}{45}, \frac{85}{45}, \frac{84}{45}, -\frac{240}{45} =$

$= \frac{77}{9} > \frac{28}{15} > -\frac{72}{5} > -\frac{76}{3}$

c) $-\frac{3}{4}, \frac{5}{2}, -\frac{3}{8}, \frac{77}{6} = -\frac{18}{24}, \frac{60}{24}, -\frac{9}{24}, \frac{44}{24}$

$= \frac{5}{2} > \frac{77}{76} > \frac{3}{8} > -\frac{3}{4}$

Escaneado con CamScanner

d) $\frac{7}{6}, -\frac{7}{2}, \frac{9}{4}, \frac{75}{8} = \frac{28}{24}, -\frac{84}{24}, \frac{54}{24}, \frac{45}{24}$

$= \frac{9}{4} > \frac{75}{8} > \frac{7}{76} > \frac{7}{2}$

e) $\frac{7}{4}, \frac{79}{12}, \frac{13}{9}, \frac{22}{23} = \frac{1449}{828}, \frac{1311}{828}, \frac{1196}{828}, \frac{792}{828}$

$= \frac{7}{4} > \frac{79}{12} > \frac{13}{9} > \frac{22}{23}$

f) $-\frac{77}{8}, \frac{-77}{4}, -\frac{23}{2}, \frac{-37}{76} = -\frac{22}{76}, -\frac{68}{76}, \frac{-184}{76}, -\frac{37}{76}$

$= \frac{-77}{8} > \frac{-37}{76} > \frac{-77}{4} > \frac{-23}{2}$

g) $\frac{7}{10}, -\frac{8}{5}, -\frac{3}{2}, -\frac{7}{3} = \frac{27}{30}, -\frac{48}{30}, -\frac{45}{36}, -\frac{70}{30} =$

$= \frac{7}{70} > \frac{-3}{2} > \frac{-8}{5} > \frac{7}{3}$

h) $-\frac{9}{20}, -\frac{7}{4}, -\frac{9}{5}, -\frac{27}{2} = -\frac{9}{20}, -\frac{35}{20}, -\frac{36}{20}, -\frac{270}{20}$

$= -\frac{9}{20}, -\frac{7}{4}, -\frac{9}{5}, -\frac{27}{2}$

Norma

Escaneado con CamScanner

DD MM AA

Practica 23

2) Realiza las siguientes sumas con mas de dos sumandos.

a) $\frac{3}{7}+\frac{5}{7}+\frac{6}{7}$

b) $\frac{3}{5}+\left(-\frac{2}{5}\right)+\frac{4}{5}$

c) $\frac{9}{4}+\frac{5}{4}+\left(-\frac{7}{4}\right)$

d) $-\frac{2}{9}+\left(-\frac{4}{9}\right)+\left(-\frac{5}{9}\right)$

e) $\frac{7}{9}+\frac{5}{18}+\frac{2}{3}$

f) $-\frac{7}{7}+\frac{3}{4}+\frac{5}{14}$

g) $\frac{2}{9}+\left(-\frac{7}{12}\right)+\frac{5}{18}$

h) $-\frac{3}{13}+\left(-\frac{15}{26}\right)+\frac{17}{65}$

---

a) $\frac{3}{7}+\frac{5}{7}+\frac{6}{7}=\frac{14}{7}$

b) $\frac{3}{5}+\left(-\frac{2}{5}\right)+\frac{4}{5}=\frac{5}{5}$

c) $\frac{9}{4}+\frac{5}{4}+\left(-\frac{7}{4}\right)=\frac{7}{4}$

d) $\frac{-2}{9}+\left(-\frac{4}{9}\right)+\left(-\frac{5}{9}\right)=-\frac{11}{9}$

e) $\frac{7}{9}+\frac{5}{18}+\frac{2}{3}=\frac{14+5+12}{18}=\frac{31}{18}$

Escaneado con CamScanner

f) $-\frac{1}{7}+\frac{3}{4}+\frac{5}{14}=\frac{-4+21+10}{28}=\frac{27}{28}$

g) $\frac{2}{9}+\left(-\frac{7}{12}\right)+\frac{5}{18}=\frac{8+(-3)+10}{36}=\frac{75}{36}$

h) $-\frac{3}{13}+\left(-\frac{75}{26}\right)+\frac{77}{65}=\frac{-30+(-75)+34}{730}=-\frac{771}{730}$

Practica 24

Halla la diferencia entre las siguientes fracciones

a) $\frac{6}{5}-\frac{9}{5}$

b) $\left(-\frac{3}{4}\right)-\left(-\frac{7}{4}\right)$

c) $\frac{3}{2}-\left(-\frac{1}{2}\right)$

d) $\left(\frac{5}{6}\right)-\frac{7}{9}$

e) $\left(\frac{7}{4}\right)-\left(-\frac{2}{3}\right)$

f) $\left(\frac{7}{8}\right)-\left(\frac{77}{6}\right)$

g) $\frac{5}{12}-\left(-\frac{9}{8}\right)$

h) $\frac{5}{9}-\left(-\frac{77}{27}\right)$

i) $\left(-\frac{4}{5}\right)-\left(\frac{7}{5}\right)$

---

a) $\frac{6}{5}-\frac{9}{5}=\frac{-3}{5}$

b) $\left(-\frac{3}{4}\right)-\left(-\frac{7}{4}\right)=-\frac{3+7}{4}=\frac{4}{4}$

c) $\frac{3}{2}-\left(-\frac{1}{2}\right)=\frac{3+1}{2}=\frac{4}{2}$

Norma

Escaneado con CamScanner

d) $\left(\frac{5}{6}\right) - \frac{7}{9} = \frac{45 - 42}{54} = \frac{3}{54}$

e) $\left(\frac{7}{4}\right) - \left(-\frac{2}{3}\right) = \frac{3 - (-8)}{12} = \frac{3 + 8}{12} = \frac{77}{12}$

f) $\left(\frac{7}{8}\right) - \left(\frac{77}{6}\right) = \frac{42 - 88}{48} = \frac{-46}{48}$

g) $\frac{5}{12} - \left(-\frac{9}{8}\right) = \frac{40 - (-108)}{96} = \frac{40 + 108}{96} = \frac{148}{96}$

h) $\frac{5}{9} - \left(-\frac{77}{27}\right) = \frac{135 - (-99)}{243} = \frac{135 + 99}{243} = \frac{234}{243}$

i) $\left(-\frac{4}{5}\right) - \left(\frac{7}{3}\right) = \frac{(-72) - (35)}{75} = -\frac{72 - 35}{75} = \frac{-47}{75}$

Escaneado con CamScanner

Integracion cognitiva

1) Escribe el numero racional que representa a cada uno de los siguientes de los grupos fraccionarios

a) $-\frac{6}{10}, -\frac{15}{25}, \frac{27}{-35} - \frac{12}{20}$

b) $\frac{27}{6}, \frac{-45}{-10}, \frac{54}{12}, -\frac{18}{4}$

c) $-\frac{75}{5}, \frac{27}{-7}, -\frac{27}{9}, \frac{36}{-12}$

d) $\frac{-9}{-27}, \frac{15}{35}, -\frac{6}{14}, \frac{-21}{-49}$

---

a) $-\frac{6}{10}, -\frac{15}{25}, \frac{27}{-35} - \frac{12}{20} = -\frac{420}{700}, -\frac{420}{700} - \frac{420}{700} - \frac{420}{700} =$

$= \frac{-1680}{700} = -\frac{12}{5}$

b) $\frac{27}{6}, \frac{-45}{-10}, \frac{54}{12} - \frac{18}{4} = \frac{27}{6}, \frac{45}{10} \frac{54}{12} - \frac{18}{4} =$

$= \frac{270}{60}, \frac{270}{60}, \frac{270}{60}, -\frac{270}{60} = \frac{540}{60} = \frac{27}{3} = 9$

c) $-\frac{75}{5}, \frac{27}{-7} - \frac{27}{9}, \frac{36}{-12} = -\frac{75}{5} - \frac{27}{7}, -\frac{27}{9}, -\frac{36}{12} =$

$= -\frac{3780}{1260}, -\frac{3780}{1260}, -\frac{3780}{1260}, -\frac{3780}{1260} = \frac{-15120}{1260} = \frac{60}{5}$

d) $\frac{-9}{-27}, \frac{15}{35} - \frac{6}{14} \frac{-27}{-49} = \frac{9}{27}, \frac{15}{35} - \frac{6}{14}, \frac{27}{49} =$

$= \frac{630}{1470}, \frac{630}{1470}, -\frac{630}{1470}, \frac{630}{1470} = \frac{1260}{1470} = \frac{6}{7}$

Escaneado con CamScanner

DD MM AA

2) Halla el termino que falta para que las Fracciones resulten equivalentes

a) $\frac{3^{12}}{5^{12}} = \frac{\boxed{36}}{60}$

b) $-\frac{3^{6}}{7^{6}} = \frac{-18}{\boxed{42}}$

c) $\frac{4^{9}}{3^{9}} = \frac{-36}{\boxed{27}}$

d) $-\frac{5}{7} = \frac{\square}{60}$

e) $\frac{9^{11}}{5^{11}} = \frac{\boxed{99}}{-55}$

f) $-\frac{11^{9}}{39} = \frac{-\boxed{99}}{27}$

Escaneado con CamScanner

Practica 25

2) Resuelvo los siguientes productos con mas de dos Factores

a) $\left(\frac{3}{2}\right)\left(\frac{2}{3}\right)\left(\frac{4}{5}\right)$

b) $\left(\frac{70}{27}\right)\left(\frac{28}{75}\right)\left(\frac{6}{5}\right)$

c) $\left(-\frac{7}{4}\right)\left(\frac{2}{14}\right)\left(\frac{3}{2}\right)$

d) $\left(-\frac{70}{9}\right)\left(\frac{15}{8}\right)\left(-\frac{76}{3}\right)$

e) $\left(-\frac{3}{5}\right)\left(\frac{5}{6}\right)\left(-\frac{72}{5}\right)$

F) $\left(-\frac{4}{9}\right)\left(-\frac{27}{76}\right)\left(-\frac{2}{3}\right)$

---

a) $\left(\frac{3}{2}\right)\cdot\left(\frac{2}{3}\right)\left(\frac{4}{5}\right) = \frac{\overset{1}{3}\cdot\overset{1}{2}\cdot 4}{2\cdot 3\cdot 5} = \frac{24}{30} = \frac{4}{5}$

b) $\left(\frac{70}{27}\right)\left(\frac{28}{75}\right)\left(\frac{6}{5}\right) = \frac{\overset{2}{70}\cdot 28\cdot 6}{\underset{3}{27}\cdot 75\cdot 5} = \frac{7680}{1575} = \frac{16}{15}$

c) $\left(\frac{-7}{4}\right)\left(\frac{2}{14}\right)\left(\frac{3}{2}\right) = \frac{\overset{1}{7}\cdot 2\cdot 3}{4\cdot 14\cdot 2} = \frac{42}{112} = \frac{3}{8}$

d) $\left(\frac{-70}{9}\right)\left(\frac{15}{8}\right)\left(\frac{-76}{3}\right) = \frac{\overset{10}{70}\cdot 15\cdot 76}{9\cdot 8\cdot 3} = \frac{2400}{216} = \frac{100}{9}$

Escaneado con CamScanner

e) $\left(\frac{-3}{5}\right)\left(\frac{5}{6}\right)\left(\frac{-12}{5}\right) = \frac{3 \cdot 5 \cdot 12}{5 \cdot 6 \cdot 5} = \frac{180}{150} = \frac{78}{75}$

$5 \cdot 3 \cdot 1$; $3 \cdot 1 \cdot 6$

f) $\left(\frac{-4}{9}\right)\left(\frac{-27}{16}\right)\left(\frac{-2}{3}\right) = \frac{4 \cdot 27 \cdot 2}{9 \cdot 16 \cdot 3} = \frac{276}{432} = \frac{3}{6}$

$1 \cdot 2 \cdot 3$; $1 \cdot 3 \cdot 1$; $1 \cdot 4$

Practica 27

Simplifica las siguientes fracciones

a) $\dfrac{\frac{7}{8} - \frac{5}{6} + \frac{4}{9}}{\frac{9}{2} - \frac{7}{4} + \frac{8}{3}}$

b) $\dfrac{\frac{5}{2} - \frac{2}{4} + \frac{1}{6}}{\frac{3}{5} + \frac{2}{7} - 3}$

c) $\dfrac{1 + \frac{2}{3} - \frac{10}{3}}{6 - \frac{4}{5} + \frac{1}{2}}$

d) $\dfrac{\frac{5}{6} - 3 + \frac{2}{3}}{\frac{1}{5} \cdot \frac{5}{2} + 1}$

e) $\dfrac{\frac{3}{8} \cdot \frac{4}{6} + 1}{\frac{5}{3} + \frac{3}{5} + 2}$

f) $\dfrac{\frac{2}{7} \cdot \frac{14}{5} + 3}{3 - \frac{1}{4} \cdot \frac{4}{3}}$

Escaneado con CamScanner

a) $\dfrac{\frac{7}{8}-\frac{5}{6}+\frac{4}{9}}{\frac{9}{2}-\frac{7}{4}+\frac{8}{3}} = \dfrac{\frac{63}{72}-\frac{60}{72}+\frac{32}{72}=\frac{35}{72}}{\frac{54}{72}-\frac{21}{72}+\frac{32}{72}=\frac{65}{72}} \Big) \frac{420}{4680} = \frac{5}{78}$

b) $\dfrac{\frac{5}{2}-\frac{2}{4}+\frac{7}{6}}{\frac{3}{5}+\frac{2}{7}-3} = \dfrac{\frac{30}{12}-\frac{6}{12}+\frac{2}{12}}{\frac{21+10}{35}-3} = \dfrac{\frac{26}{12}}{\frac{37}{35}-\frac{3}{1}} = \dfrac{\frac{26}{12}}{\frac{37-105}{35}}$

$= \dfrac{\frac{26}{12}}{\frac{-74}{35}} \Big) = \dfrac{910}{888} = \dfrac{455}{444}$

c) $\dfrac{1+\frac{2}{3}-\frac{10}{3}}{6-\frac{4}{5}+\frac{1}{2}} = \dfrac{1+\frac{2-10}{3}}{6-\frac{8+5}{10}} = \dfrac{\frac{1}{1}+\frac{8}{3}}{\frac{6}{1}-\frac{13}{10}} = \dfrac{\frac{3+8}{3}}{\frac{60-13}{10}} =$

$= \dfrac{\frac{11}{3}}{\frac{47}{10}} = \dfrac{11 \times 10}{3 \times 47} = \dfrac{110}{141}$

d) $\dfrac{\frac{5}{6}-3+\frac{2}{3}}{\frac{1}{5}\cdot\frac{5}{2}+1} = \dfrac{\frac{5}{6}-\frac{3}{1}+\frac{2}{3}}{\frac{5+10}{10}+1} = \dfrac{\frac{5-18+4}{6}}{\frac{15}{10}+\frac{1}{1}} = \dfrac{\frac{-9}{6}}{\frac{15}{10}} \Big)$

$= \dfrac{90}{90} = 1$

Escaneado con CamScanner

e) $\dfrac{\frac{3}{8}\cdot\frac{4}{6}+1}{\frac{5}{3}+\frac{3}{5}+2} = \dfrac{\frac{12}{48}+1}{\frac{25+9}{15}+2} = \dfrac{\frac{12}{48}+\frac{1}{1}}{\frac{34}{15}+\frac{2}{1}} = \dfrac{\frac{12+48}{48}}{\frac{34+30}{15}} =$

$= \dfrac{\frac{60}{48}}{\frac{64}{15}} = \dfrac{15\times 5}{\frac{60\times 15}{48\times 64}} = \dfrac{75}{256}$ (16 × 16)

f) $\dfrac{\frac{2}{7}\cdot\frac{14}{5}+3}{3-\frac{1}{4}\cdot\frac{4}{3}} = \dfrac{\frac{28}{35}+3}{3-\frac{4}{12}} = \dfrac{\frac{28}{35}+\frac{3}{1}}{\frac{3}{1}-\frac{4}{12}} = \dfrac{\frac{28+105}{35}}{\frac{36-4}{12}}$

$= \dfrac{\frac{133}{35}}{\frac{32}{12}} = \dfrac{19\times 3}{\frac{133\times 12}{35\times 32}} = \dfrac{57}{40}$ (5 × 8)

Escaneado con CamScanner