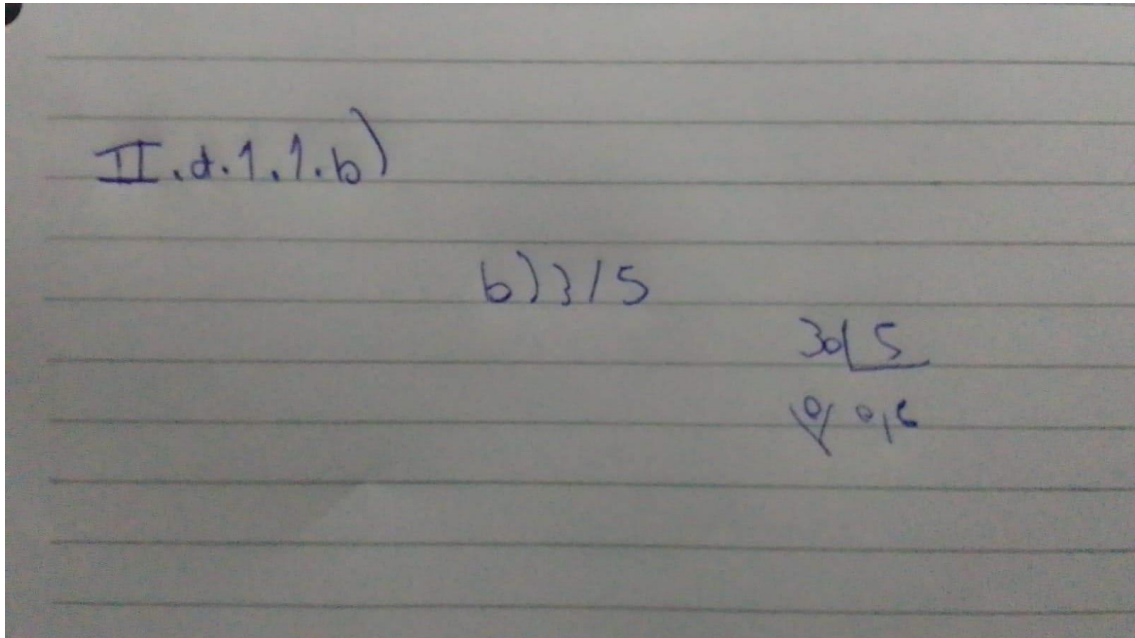


## Clase II Actividades Grupo 2

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II.d.1.1.b)



II.d.1.2.c)

Handwritten notes for problem II.d.1.2.c). The text "c)  $0, \overline{53}$ " is written at the top. Below it, the following equations are written:

$$\begin{aligned} 100x &= 0, \overline{53} \\ 100x &= 53, \overline{53} \\ x &= 0, \overline{53} \\ x(100-1) &= (53, \overline{53} - 0, \overline{53}) \\ x99 &= 53 \end{aligned}$$

II.d.1.3.b)

I.I.d.1.3) Resolver y expresar el resultado en su mínima expresión

b)  $(0,1\bar{2} + 0,1\bar{3})^2$

$$\begin{array}{r} 0,1\bar{2} + 0,1\bar{3} \\ \hline \frac{11}{90} + \frac{1}{9} \\ \hline \frac{11}{90} + \frac{10}{90} \\ \hline \frac{21}{90} \\ \hline \frac{7}{30} \end{array}$$

$\left(\frac{7}{30}\right)^2$

$$\begin{array}{r} \frac{7}{30} \\ \hline \frac{49}{900} \end{array}$$

$\frac{49}{900} \cdot \frac{900}{7} = 7$

2ux:  $X = 0,1\bar{2}$

$$\begin{array}{r} 10X = 1,2 \\ 10 - X = 1,2 - 0,1\bar{2} \\ 9X = 1,1 \\ 9X = \frac{11}{10} \\ X = \frac{11}{90} \end{array}$$

2ux:  $X = 0,1\bar{3}$

$$\begin{array}{r} 10X = 1,3 \\ 10 - X = 1,3 - 0,1\bar{3} \\ 9X = 1 \\ 9X = \frac{1}{1} \\ X = \frac{1}{9} \end{array}$$

2ux:  $X = 0,00\bar{7}$

$$\begin{array}{r} 10X = 0,07 \\ 10 - X = 0,07 - 0,00\bar{7} \\ 9X = 0,06\bar{3} \\ 9X = \frac{63}{1000} \\ X = \frac{7}{1000} \end{array}$$

2ux:  $\frac{11}{90} + \frac{1}{9} = \frac{11+10}{90} = \frac{21}{90} = \frac{7}{30}$

2ux:  $\frac{49}{900} \cdot \frac{900}{7} = \frac{7}{1} \cdot \frac{1}{1} = 7$

II.d.1.3.c)

c)  $(0,54 + \frac{3}{5})^2$

$$\begin{array}{r} 0,54 + \frac{3}{5} \\ \hline \frac{49}{90} + \frac{3}{5} \\ \hline \frac{49}{90} + \frac{36}{90} \\ \hline \frac{85}{90} \\ \hline \frac{17}{18} \end{array}$$

$\left(\frac{17}{18}\right)^2$

$$\begin{array}{r} \frac{17}{18} \\ \hline \frac{289}{324} \end{array}$$

$\frac{289}{324} \cdot \frac{324}{17} = 17$

2ux:  $X = 0,54$

$$\begin{array}{r} 10X = 5,4 \\ 10 - X = 5,4 - 0,54 \\ 9X = 4,9 \\ 9X = \frac{49}{10} \\ X = \frac{49}{90} \end{array}$$

2ux:  $X = \frac{3}{5}$

$$\begin{array}{r} 10X = 6 \\ 10 - X = 6 - \frac{3}{5} \\ 9X = 5,4 \\ 9X = \frac{54}{10} \\ X = \frac{6}{10} = \frac{3}{5} \end{array}$$

2ux:  $\frac{49}{90} + \frac{3}{5} = \frac{49+54}{90} = \frac{103}{90}$

2ux:  $\frac{10609}{8100} \cdot \frac{8100}{103} = \frac{10609}{103} = 103$

2ux:  $\frac{289}{324} \cdot \frac{324}{17} = 17$

2ux:  $\frac{49}{90} + \frac{3}{5} = \frac{49+54}{90} = \frac{103}{90}$

2ux:  $\frac{10609}{8100} \cdot \frac{8100}{103} = \frac{10609}{103} = 103$

II.d.1.4.e)

2.d.1.4) Guía de ejercicios con operaciones de números racionales

c) 
$$-\frac{3}{4} \cdot \left[ \frac{4}{3} \left( \frac{1}{2} - \frac{1}{3} \right) + \frac{2}{7} \right]$$

$$-\frac{3}{4} \cdot \left[ \frac{4}{3} \cdot \frac{1}{6} + \frac{2}{7} \right]$$

$$-\frac{3}{4} \cdot \left[ \frac{2}{3} + \frac{2}{7} \right]$$

$$-\frac{3}{4} \cdot \left[ \frac{2}{9} + \frac{2}{7} \right]$$

$$-\frac{3}{4} \cdot \left[ \frac{32}{63} \right]$$

$$-\frac{3}{4} \cdot \frac{32}{63}$$

$$-\frac{1}{3} \cdot \frac{8}{21} = -\frac{8}{21}$$

AUX

$$\frac{1}{2} - \frac{1}{3} = \frac{3-2}{6} = \frac{1}{6}$$

$$\begin{array}{r} 9 \overline{) 8} \quad 7 \quad 7 \\ 3 \overline{) 3} \quad 1 \quad 1 \\ 1 \end{array}$$

$$9 = 3^2 \quad 7 = 7$$

$$mcm = 3^2 \cdot 7$$

$$mcm = 63$$

$$\frac{2}{9} + \frac{2}{7} = \frac{14 + 18}{63} = \frac{32}{63}$$

II.d.1.4.g)

g) 
$$8 - \frac{2}{5} \cdot \frac{1}{9} + \frac{1}{21} \left( \frac{9}{4} - \frac{2}{5} \right)$$

$$8 - \frac{13}{45} + \frac{1}{21} \left( \frac{37}{20} \right)$$

$$8 - \frac{26}{105} + \frac{37}{420} = \frac{3360 - 104 + 37}{420} = \frac{3293}{420}$$

AUX

$$\frac{2}{5} \cdot \frac{1}{9} = \frac{18-5}{45} = \frac{13}{45}$$

$$\frac{9}{4} - \frac{2}{5} = \frac{45-8}{20} = \frac{37}{20}$$

$$\frac{13}{45} \cdot \frac{1}{6} = \frac{13}{270} = \frac{13}{45} \cdot \frac{2}{7} = \frac{26}{105}$$

$$\frac{1}{21} \cdot \frac{37}{20} = \frac{1 \cdot 37}{21 \cdot 20} = \frac{37}{420}$$