

	COLEGIO ITALICA Argujío 5-7 SEVILLA 41003	MATEMATICAS 3º ESO EVAL: 1ª FECHA: 5-10-2018	
NOMBRE			Nº:

Ejercicio 1: Opera y simplifica el resultado:

$$a) \frac{1}{2} \left[3 - \frac{2}{5} \left(1 - \frac{5}{9} \right) - \left(4 - \frac{2}{3} \right) : 2 \right] = \frac{1}{2} \left[3 - \frac{2}{5} \left(\frac{4}{9} \right) - \left(\frac{10}{3} \right) : 2 \right] = \frac{1}{2} \left[3 - \frac{8}{45} - \frac{5}{3} \right] =$$

$$\frac{1}{2} \left[\frac{135}{45} - \frac{8}{45} - \frac{75}{45} \right] = \frac{1}{2} \cdot \frac{52}{45} = \boxed{\frac{26}{45}}$$

$$b) \left[\left(\frac{2}{3} - \frac{1}{9} \right) + 13 \left(\frac{2}{3} - 1 \right)^2 \right] : \left(\frac{-2}{3} \right) = \left[\frac{5}{9} + 13 \left(\frac{-1}{3} \right)^2 \right] : \left(\frac{-2}{3} \right) = \left[\frac{5}{9} + \frac{13}{9} \right] : \left(\frac{-2}{3} \right) =$$

$$\frac{18}{9} : \left(\frac{-2}{3} \right) = 2 : \left(\frac{-2}{3} \right) = \frac{6}{-2} = \boxed{-3}$$

Ejercicio 2: Calcula pasando previamente cada decimal a fracción:

$$a) 3'4\widehat{2} + 7'\widehat{6} \cdot 0'2 = \frac{342-34}{90} + \frac{76-7}{9} \cdot \frac{2}{10} = \frac{308}{90} + \frac{69}{9} \cdot \frac{2}{10} = \frac{446}{90} = \boxed{\frac{223}{45}} = 4'9\widehat{5}$$

$$b) -1'8\widehat{9} + 0'028 + 0'72 = -\frac{189-18}{90} + \frac{28}{990} + \frac{72}{99} = -\frac{171}{90} + \frac{28}{990} + \frac{72}{100} = -\frac{19}{10} + \frac{28}{990} + \frac{72}{100}$$

$$= \frac{-18810 + 280 + 7128}{9900} = \frac{-11402}{9900} = \boxed{\frac{-5701}{4950}} = -1'1517$$

Ejercicio 3: Indica dos números racionales y dos irracionales comprendidos entre

$5'78$ y $5'\widehat{78}$

$5'78 = 5'78787878\dots$

$5'\widehat{78} = 5'788888\dots$

Racionales: $5'7879$ y $5'7882$

Irracionales: $5'7879808182\dots$ y $5'7882888288882\dots$