	Nombre:			1º TRIMESTRE	Nota
	Curso:	2º ESO C	Control Operaciones NZQP		
	Fecha:	5 de diciembre de 2024	Cada operación vale 1 punto		

I.E.S. ABYLA (Ceuta)

1.- Realiza paso a paso las siguientes operaciones en un folio e indica aquí sus soluciones

$$a) \quad 15+8-11-7-2+7-5-3=$$

$$b) \quad 4 \cdot 5 - 2 \cdot 8 + 3 \cdot 9 - 6 \cdot 7 : 14 =$$

$$c) \quad -3 - (-4) \cdot [\sqrt{64} - 5 \cdot (-2)] =$$

$$d) \quad -5 - (-2) \cdot (-1 + 3^2 - 4) + (-4)^2 : (-2^2) =$$

$$m) \quad \frac{12}{15} - 3 + \frac{40}{12} - \frac{10}{8} =$$

$$n) \quad \frac{5}{2} + 2 \cdot \left(7 - \frac{1}{3}\right) - 8 =$$


$$o) \quad 3 + \frac{1}{4} \left[ \frac{1}{2} + 3 \cdot \left(4 - \frac{2}{3}\right) \right] =$$

$$p) \quad 2 \cdot \sqrt{\frac{13}{9} + \frac{4}{3}} - \left[ 3 - \left(1 + \frac{4}{5}\right) \cdot 2 \right] \div 2 + \frac{1}{3} =$$

$$x) \quad [(-2)^3]^2 : [(-2)^4 \cdot 2^2] =$$

$$y) \quad [25^5 \cdot (-4)^5] : (-10)^3 =$$

$$z) \quad [(10^3)^4 \cdot 100^5] : 1000^4 =$$

	Nombre:	<b>SOLUCIONES</b>		1º TRIMESTRE	Nota
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1.- Realiza paso a paso las siguientes operaciones combinadas.

$$a) \quad 15 + 8 - 11 - 7 - 2 + 7 - 5 - 3 = 2$$

$$b) \quad 4 \cdot 5 - 2 \cdot 8 + 3 \cdot 9 - 6 \cdot 7 : 14 = 20 - 16 + 27 - 3 = 28$$

$$c) \quad -3 - (-4) \cdot [\sqrt{64} - 5 \cdot (-2)] = -3 - (-4) \cdot [8 + 10] = -3 - (-4) \cdot [18] = -3 + 72 = 69$$

$$d) \quad -5 - (-2) \cdot (-1 + 3^2 - 4) + (-4)^2 : (-2^2) = -5 - (-2) \cdot (-1 + 9 - 4) + 16 : (-4) = \\ = -5 - (-2) \cdot 4 - 4 = -5 + 8 - 4 = -1$$

$$m) \quad \frac{12}{15} - 3 + \frac{40}{12} - \frac{10}{8} = \frac{4}{5} - 3 + \frac{10}{3} - \frac{5}{4} = \frac{4 \cdot 12}{60} - \frac{3 \cdot 60}{60} + \frac{10 \cdot 20}{60} - \frac{5 \cdot 15}{60} = \\ = \frac{48}{60} - \frac{180}{60} + \frac{200}{60} - \frac{75}{60} = \frac{-7}{60}$$

Simplificamos antes del mcm

$$n) \quad \frac{5}{2} + 2 \cdot \left(7 - \frac{1}{3}\right) - 8 = \frac{5}{2} + 2 \cdot \left(\frac{7 \cdot 3}{3} - \frac{1}{3}\right) - 8 = \frac{5}{2} + 2 \cdot \left(\frac{21}{3} - \frac{1}{3}\right) - 8 = \frac{5}{2} + 2 \cdot \left(\frac{20}{3}\right) - 8 = \\ = \frac{5}{2} + \frac{40}{3} - 8 = \frac{3 \cdot 5}{6} + \frac{2 \cdot 40}{6} - \frac{6 \cdot 8}{6} = \frac{15}{6} + \frac{80}{6} - \frac{48}{6} = \frac{47}{6}$$

$$o) \quad 3 + \frac{1}{4} \left[ \frac{1}{2} + 3 \cdot \left(4 - \frac{2}{3}\right) \right] = 3 + \frac{1}{4} \left[ \frac{1}{2} + 3 \cdot \left(\frac{4 \cdot 3}{3} - \frac{2}{3}\right) \right] = 3 + \frac{1}{4} \left[ \frac{1}{2} + 3 \cdot \left(\frac{12}{3} - \frac{2}{3}\right) \right] = \\ = 3 + \frac{1}{4} \left[ \frac{1}{2} + 3 \cdot \left(\frac{10}{3}\right) \right] = 3 + \frac{1}{4} \left[ \frac{1}{2} + 10 \right] = 3 + \frac{1}{4} \left[ \frac{1}{2} + \frac{20}{2} \right] = 3 + \frac{1}{4} \left[ \frac{21}{2} \right] = 3 + \frac{21}{8} = \\ = \frac{24}{8} + \frac{21}{8} = \frac{45}{8}$$

$$\begin{aligned}
 \rho) \quad & 2 \cdot \sqrt{\frac{13}{9} + \frac{4}{3}} - \left[ 3 - \left( 1 + \frac{4}{5} \right) \cdot 2 \right] \div 2 + \frac{1}{3} = 2 \cdot \sqrt{\frac{13}{9} + \frac{12}{9}} - \left[ 3 - \left( \frac{5}{5} + \frac{4}{5} \right) \cdot 2 \right] \div 2 + \frac{1}{3} = \\
 & = 2 \cdot \sqrt{\frac{25}{9}} - \left[ 3 - \left( \frac{9}{5} \right) \cdot 2 \right] \div 2 + \frac{1}{3} = 2 \cdot \frac{5}{3} - \left[ 3 - \frac{18}{5} \right] \div 2 + \frac{1}{3} = \frac{10}{3} - \left[ \frac{15}{5} - \frac{18}{5} \right] \div 2 + \frac{1}{3} = \\
 & = \frac{10}{3} + \frac{3}{10} + \frac{1}{3} = \frac{100}{30} + \frac{9}{30} + \frac{10}{30} = \frac{119}{30}
 \end{aligned}$$

$$x) \quad [(-2)^3]^2 : [(-2)^4 \cdot 2^2] = 2^6 : [2^4 \cdot 2^2] = 2^6 : 2^6 = 2^0 = 1$$

$$y) \quad [25^5 \cdot (-4)^5] : (-10)^3 = (-100)^5 : (-10)^3 = (10^2)^5 : 10^3 = 10^{10} : 10^3 = 10^7$$

$$z) \quad [(10^3)^4 \cdot 100^5] : 1000^4 = 10^{12} \cdot (10^2)^5 : (10^3)^4 = 10^{12} \cdot 10^{10} : 10^{12} = 10^{10}$$