1 g) $\frac{13}{77}\left(\frac{11}{39}-\frac{33}{26}\right) =$

"Sin pensar" $= \frac{13}{77}\left(\frac{11\cdot 2}{39\cdot 2}-\frac{33\cdot 3}{26\cdot 3}\right) =$

$= \frac{13}{77}\cdot\left(\frac{22-99}{78}\right) = \frac{13}{77}\cdot\frac{-77}{78} =$

$= \frac{13\cdot(-77)}{77\cdot 78} = \frac{-\cdots}{\cdots} = \cdots$ ☹

78 ?
// \\
39·2 26·3

99
−22
77

"Con pensar"! $\frac{\cancel{13}}{\cancel{77}_{7}}\left(\frac{11}{\cancel{39}_{3}}-\frac{\overset{3}{\cancel{33}}}{\cancel{26}_{2}}\right) = \frac{1}{7}\left(\frac{1}{3}-\frac{3}{2}\right) = \frac{1}{7}\left(\frac{2-9}{6}\right) =$

$= \frac{1}{7}\left(\frac{-7}{6}\right) = -\frac{1}{6}$

AM $= -\frac{13013}{78078} = -\frac{7 \cdot 11 \cdot 13 \cdot 13}{2 \cdot 3 \cdot 7 \cdot 11 \cdot 13 \cdot 13} = -\frac{1}{2 \cdot 3} = -\frac{1}{6}$

WA

$= -\frac{1 \cdot 1 \cdot 7 \cdot 11 \cdot 13 \cdot 13}{2 \cdot 3 \cdot 7 \cdot 11 \cdot 13 \cdot 13} = -\left(\frac{1}{2}\right) \cdot \left(\frac{1}{3}\right) \cdot \left(\frac{7}{7}\right) \left(\frac{11}{11}\right) \cdot \left(\frac{13}{13}\right) \left(\frac{13}{13}\right)$

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

$\frac{a}{b} \cdot \frac{c}{d} = \frac{a \cdot c}{b \cdot d}$

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

$\frac{2}{3} \cdot \frac{5}{7} = \frac{2 \cdot 5}{3 \cdot 7} =$

$= \frac{10}{21}$

$\frac{6}{9} = \frac{2}{3}$

3 b) $\frac{102}{101} < \frac{103}{102}$ cierto o falso

$\frac{2}{1} < \frac{3}{2}$ Falso

$\frac{103}{102} \neq \frac{3}{2}$

(1) Sacar calculadora $1.0099009901 < 1.00980392157$

Falso

(2) encontrar denominador común

$$\frac{102 \cdot 102}{101 \cdot 102} \overset{?}{<} \frac{103 \cdot 101}{102 \cdot 101}$$

$$\Updownarrow$$

$$102 \cdot 102 < 103 \cdot 101$$

Falso (desp. de calcular)

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

$2\frac{2}{3}$

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

$1\frac{1}{2}$

(3) $\frac{102}{101} = 1 + \frac{1}{101}$, $\frac{103}{102} = 1 + \frac{1}{102}$

$\frac{1}{101} > \frac{1}{102}$

F e) $\sqrt{x^2} = x$ para todo x

g) $(\sqrt{x})^2 = x$ para todo $x \geq 0$

4 $\xrightarrow{\sqrt{\ }}$ 2 $\xrightarrow{(\ )^2}$ 4

$\sqrt{x^2} = x$

Cierto

Falso

C f) $\sqrt{x^2} = x$ para todo $x \geq 0$

2 $\xrightarrow{(\ )^2}$ 4 $\xrightarrow{\sqrt{\ }}$ 2

h) Para todo a, b, si $a < b$ entonces $-b < -a$.

$x=2: \sqrt{2^2} = \sqrt{4} = 2$ ✓

$x=1: \sqrt{1^2} = \sqrt{1} = 1$ ✓

$x=0: \sqrt{0^2} = \sqrt{0} = 0$ ✓

$x=-1: \sqrt{(-1)^2} = \sqrt{1} = 1$ ✗

3f $\sqrt{x^2} = x$ por def. de $\sqrt{\ }$

cierto

3g $(\sqrt{x})^2 = x$ Cierto por def.

$\sqrt{123^2} = 123$

$(\sqrt{7})^2 = 7$

$x = 0.123123123\ldots$

$10x = 1.23\ldots$

$100x = 12.3123\ldots$

$1000x = 123.123\ldots = 123 + \underbrace{0.123\ldots}_{x}$

$1000x = 123 + x \quad / -x$

$999x = 123 \quad / \cdot \frac{1}{999}$

$$x = \frac{123}{999} = \frac{41}{333}$$