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$$22d) -12ab^3 + 4b^2 - 6b^4 = \underline{\underline{2b^2 \cdot (-ab + 2 - 3b^2)}}$$

$$22e) 34a^4 - 14a^3b + 28ab^3 = 2a \cdot \underline{\underline{(17a^3 - 7a^2b + 14b^3)}}$$

$$22f) 20a^4b^2c + 36a^2b - 18a^3b^2 = 2a^2b \cdot (10a^2bc + 18 - 9ab)$$

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$$95) \text{ Libros} = \underline{\underline{3^4}}$$

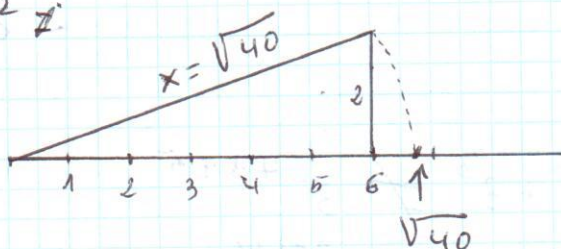
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77b)  $40 = 6^2 + 2^2$

$x^2 = 6^2 + 2^2$

$x^2 = 40$

$x = \sqrt{40}$



71a)  $15 \cdot 10^4 + x = 13 \cdot 10^3$

$x = 13 \cdot 10^3 - 15 \cdot 10^4 = 13 \cdot 10^3 - 150 \cdot 10^3 = -137 \cdot 10^3$

$= -1'37 \cdot 10^5$

Comprobación.

$15 \cdot 10^4 + (-1'37 \cdot 10^5) = 15 \cdot 10^4 + (-13'7 \cdot 10^4) = 1'3 \cdot 10^4$

$= 13 \cdot 10^3$

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62b)  $1'3232 \cdot 10^{-3} = \underline{\underline{0'0013232}}$

62c)  $3'124 \cdot 10^{-7} = \underline{\underline{0'0000003124}}$

61a)  $(5^2 \cdot 25^2)^3 = (5^2 \cdot (5^2)^2)^3 = (5^2 \cdot 5^4)^3 = (5^6)^3 = \underline{\underline{5^{18}}}$

63b)  $8^4 \cdot 16^2 = (2^3)^4 \cdot (2^4)^2 = 2^{12} \cdot 2^8 = \underline{\underline{2^{20}}}$

57a)  $9^{-1} \neq -9 \rightarrow 9^{-1} = \frac{1}{9}$



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$$57b) (-2)^{-4} \neq 2^4 \rightarrow (-2)^{-4} = \frac{1}{-2^4} = \frac{1}{2^4}$$

$$56a) 3^2 + 3^3 + 3^5 \neq 3^{2+3+5}$$
$$3^2 \cdot 3^3 \cdot 3^5 = 3^{2+3+5} = 3^{10}$$

$$56b) 3^2 \cdot 3^3 - 3^5 = 3^{2+3} - 3^5 = 3^5 - 3^5 \neq 3^0$$
$$\hookrightarrow 3^5 - 3^5 = 0$$

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$$55b) (2^{-2})^3 \cdot 2^{-4} = 2^{-6} \cdot 2^{-4} = 2^{-10} = \frac{1}{2^{10}}$$

88) a)  $\frac{3}{8} \cdot 800 = \frac{2.400}{8} = 300$  europeos

b)  $\frac{1}{5} \cdot \frac{1}{2} = \frac{1}{10} \parallel 800 \cdot \frac{1}{10} = 80$  asiáticas

c)  $\frac{1}{5} \cdot 800 = 160$  asiáticas

$800 - 300 - 160 = 340$  africanos

d) Jóvenes europeos y asiáticos =  $\frac{3}{8} + \frac{1}{5} = \frac{15}{40} + \frac{8}{40} = \frac{23}{40}$

↓ europeos      ↗ asiáticas

Africanos =  $1 - \frac{23}{40} = \frac{40}{40} - \frac{23}{40} = \frac{17}{40} \rightarrow$  africanos

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$$23a) \frac{x^2}{2} - \frac{x}{2} = \frac{x}{2} \cdot (x-1)$$

23b)

$$\begin{aligned} x \cdot (xy^2 - y) + y^2 \cdot (4xy - 3y) &= x \cdot y (x \cdot y - 1) + \\ + y^2 \cdot y (4x - 3) &= y [x \cdot (x \cdot y - 1) + y^2 (4x - 3)] \end{aligned}$$