

12 27) 
$$\frac{200 \cdot 45}{100} = \underline{\underline{90 \text{ hm}^3}}$$

12 28) 
$$\frac{80}{1.500} = \frac{x}{100} \quad // \quad x = \frac{80 \cdot 100}{1.500} = 5'3\%$$

12 29) 
$$\frac{16}{100} = \frac{x}{180} \quad // \quad x = \frac{180 \cdot 16}{100} = 28'8$$

Precio =  $180 + 28'8 = \underline{\underline{208'80 \text{ €}}}$

12 30) 
$$x + 4\% x = 15 \quad // \quad x + \frac{4 \cdot x}{100} = 15 \quad // \quad x + 0'04x = 15$$
  
$$1'04x = 15 \quad // \quad x = \frac{15}{1'04} = 14'42 \text{ €}$$

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12 31) a)  $12 \cdot 0'85 \cdot 1'16 = 0'986 \cdot 12 = 11'38 \text{ €}$

b) He pagado el 98'6% del precio inicial

12 32) Lunes  $\Leftrightarrow 15 \cdot 1'03 = 15'45 \text{ €}$

Martes  $\rightarrow 15'45 \cdot 0'93 = 14'37 \text{ €}$

Miércoles  $\rightarrow 14'37 \cdot 1'10 = 15'81 \text{ €}$

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$$58) \quad \frac{1.000}{9+3+3} = \frac{x}{9} = \frac{y}{3} = \frac{z}{3}$$

$$\frac{1.000}{15} = \frac{x}{9} // \quad x = \frac{1.000 \cdot 9}{15} = 600 \text{ €}$$

$$\frac{1.000}{15} = \frac{y}{3} // \quad y = \frac{1.000 \cdot 3}{15} = 200 \text{ €}$$

$$z = \text{---} \rightarrow 200 \text{ €}$$

60)

$$\frac{1.500}{12+8} = \frac{x}{12} = \frac{y}{8}$$

$$\frac{1.500}{20} = \frac{x}{12} // \quad x = \frac{1.500 \cdot 12}{20} = 900 \text{ €}$$

$$\frac{1.500}{20} = \frac{y}{8} // \quad y = \frac{1.500 \cdot 8}{20} = 600 \text{ €}$$

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62)

$$\frac{1.000.000}{\frac{1}{6} + \frac{1}{8} + \frac{1}{10}} = \frac{x}{1/6} = \frac{y}{1/8} = \frac{z}{1/10}$$

$$\rightarrow \frac{20}{120} + \frac{15}{120} + \frac{12}{120} = \frac{47}{120}$$

$$\frac{1.000.000}{47/120} = \frac{x}{1/6} // \frac{120.000.000}{47} = \frac{6x}{1} // x = \frac{120.000.000}{6 \cdot 47} = 425.532 \text{ €}$$

$$x = \frac{120.000}{6 \cdot 47} = 425.532 \text{ €}$$

$$\frac{120.000.000}{47} = \frac{y}{1/8} // \frac{120.000.000}{47} = \frac{8y}{1} //$$

$$y = \frac{120.000.000}{8 \cdot 47} = 319.149 \text{ €}$$

$$\frac{120.000.000}{47} = \frac{z}{1/10} // \frac{120.000.000}{47} = \frac{10z}{1}$$

$$z = \frac{120.000.000}{47 \cdot 10} = 255.319 \text{ €}$$

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64)

$$\frac{\text{Premio}}{10+6+4} = \frac{5.000}{10} = \frac{x}{6} = \frac{y}{4}$$

$$\frac{P}{20} = \frac{5.000}{10} // P = \frac{5.000 \cdot 20}{10} = 10.000 \text{ €}$$

$$\frac{5.000}{10} = \frac{x}{6} // x = \frac{5.000 \cdot 6}{10} = 3.000 \text{ €}$$

$$\frac{5.000}{10} = \frac{y}{4} // y = \frac{5.000 \cdot 4}{10} = 2.000 \text{ €}$$

$$(65) \frac{10.350}{22+23+e} = \frac{x}{22} = \frac{y}{23} = \frac{3.600}{e}$$

$$\frac{10.350}{22+23+e} = \frac{3.600}{e} \quad // \quad 3.600(22+23+e) = 10.350e$$

$$79.200 + 82.800 + 3.600e = 10.350e$$

$$162.000 = 10.350e - 3.600e$$

$$162.000 = 6.750e$$

$$e = \frac{162.000}{6.750} = \underline{\underline{24 \text{ años}}}$$

$$\frac{x}{22} = \frac{3.600}{24} \quad // \quad x = \frac{22 \cdot 3600}{24} = 3.300 \text{ €}$$

$$\frac{y}{23} = \frac{3.600}{24} \quad // \quad y = \frac{23 \cdot 3600}{24} = 3.450 \text{ €}$$

Otro método.

Calculamos lo que se reparten los dos hermanos menores:

$10.350 - 3600 = 6.750 \text{ €}$  se reparten los menores, y esto lo repartimos proporcionalmente entre ellos:

$$\frac{6.750}{22+23} = \frac{x}{22} = \frac{y}{23}$$

$$\frac{6.750}{45} = \frac{x}{22} \quad // \quad x = \frac{6.750 \cdot 22}{45} = 3.300 \text{ €}$$

$$\frac{6.750}{45} = \frac{y}{23} \quad // \quad y = \frac{6.750 \cdot 23}{45} = 3.450 \text{ €}$$

La edad del mayor  $\rightarrow \frac{3450}{23} = \frac{3600}{e} \quad // \quad e = \frac{23 \cdot 3600}{3.450} = \underline{\underline{24 \text{ años}}}$

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$$\frac{c}{\frac{1}{10} + \frac{1}{7} + \frac{1}{3}} = \frac{x}{1/10} = \frac{y}{1/7} = \frac{50}{1/3}$$

$$\frac{x}{1/10} = \frac{50}{1/3} // 10x = 3 \cdot 50 // x = \frac{3 \cdot 50}{10} = \underline{\underline{15}}$$

$$\frac{y}{1/7} = \frac{50}{1/3} // 7y = 3 \cdot 50 // y = \frac{3 \cdot 50}{7} = \underline{\underline{21'43 \text{ €}}}$$