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$$1) \text{ a) } \frac{2}{7} + \frac{10}{7} = \boxed{\frac{12}{7}}$$

$$\text{b) } 4\frac{5}{9} - \frac{3}{9} = \frac{36+5}{9} - \frac{3}{9} = \frac{41}{9} - \frac{3}{9} = \boxed{\frac{38}{9}}$$

$$\text{c) } 5\frac{1}{2} + \frac{2}{3} = \frac{10+1}{2} + \frac{2}{3} = \frac{11}{\cancel{2}_3} + \frac{2}{\cancel{3}_2} = \frac{33}{6} + \frac{4}{6} = \boxed{\frac{37}{6}}$$

$$\text{d) } \frac{5}{\cancel{3}_4} - \frac{3}{\cancel{4}_3} = \frac{20}{12} - \frac{9}{12} = \boxed{\frac{11}{12}}$$

$$\text{e) } \frac{5}{\cancel{1}_{10}} + \frac{3}{\cancel{5}_2} + \frac{8}{\cancel{10}_1} = \frac{50}{10} + \frac{6}{10} + \frac{8}{10} = \frac{64 \div 2}{10 \div 2} = \boxed{\frac{32}{8}}$$

$$\text{f) } \frac{10}{\cancel{1}_{12}} - \frac{7}{\cancel{4}_3} - \frac{5}{\cancel{6}_2} = \frac{120}{12} - \frac{21}{12} - \frac{10}{12} = \boxed{\frac{83}{12}}$$

$$\text{g) } \frac{1}{4} + 6\frac{2}{3} + \frac{5}{6} = \frac{1}{\cancel{4}_3} + \frac{20}{\cancel{3}_4} + \frac{5}{\cancel{6}_2} = \frac{3}{12} + \frac{80}{12} + \frac{10}{12} = \frac{93 \div 3}{12 \div 3} = \boxed{\frac{31}{4}}$$

$$\text{h) } 5\frac{2}{5} - \frac{1}{3} + \frac{1}{2} = \frac{27}{\cancel{5}_6} - \frac{1}{\cancel{3}_{10}} + \frac{1}{\cancel{2}_{15}} = \frac{162}{30} - \frac{10}{30} + \frac{15}{30} = \boxed{\frac{167}{30}}$$

2) Compare:

$$\text{a) } 3\frac{2}{7} \text{ e } \frac{10}{7} = \boxed{\frac{23}{7} > \frac{10}{7}}$$

$$\text{b) } \boxed{\frac{5}{9} > \frac{3}{9}}$$

$$\text{c) } \frac{1}{\cancel{2}_3} \text{ e } \frac{2}{\cancel{3}_2} \Rightarrow \boxed{\frac{3}{6} < \frac{4}{6}}$$

$$\text{d) } \frac{5}{3} \text{ e } 2\frac{3}{4} \Rightarrow \frac{5}{\cancel{3}_4} \text{ e } \frac{11}{\cancel{4}_3} \Rightarrow \boxed{\frac{20}{12} < \frac{33}{12}}$$

3) Simplifique:

$$\text{a) } \frac{10^{\div 2}}{18_{\div 2}} = \boxed{\frac{5}{9}}$$

$$\text{b) } \frac{6^{\div 2}}{14_{\div 2}} = \boxed{\frac{3}{7}}$$

$$\text{c) } \frac{11^{\div 11}}{44_{\div 11}} = \boxed{\frac{1}{4}}$$

$$\text{d) } \frac{36^{\div 2}}{72_{\div 2}} = \frac{18^{\div 2}}{36_{\div 2}} = \frac{9^{\div 3}}{18_{\div 3}} = \frac{3^{\div 3}}{6_{\div 3}} = \boxed{\frac{1}{2}}$$

4) Multiplicação:

$$\text{a) } \frac{1}{\cancel{2}_1} \times \frac{\cancel{2}^1}{5} = \boxed{\frac{1}{5}}$$

$$\text{b) } 2\frac{4}{7} \times \frac{3}{2} = \frac{\cancel{18}^9}{7} \times \frac{3}{\cancel{2}_1} = \boxed{\frac{27}{7}}$$

$$\text{c) } \frac{6}{\cancel{5}_1} \times \frac{\cancel{5}^1}{4} = \frac{6^{\div 2}}{4_{\div 2}} = \boxed{\frac{3}{2}}$$

$$\text{d) } \frac{\cancel{4}^2}{18} \times \frac{\cancel{3}^1}{6} = \frac{2^{\div 2}}{6_{\div 2}} = \boxed{\frac{1}{3}}$$

$$\text{e) } \frac{\cancel{7}^1}{6_3} \times \frac{32^{16}}{\cancel{21}^3_3} = \boxed{\frac{16}{9}}$$

$$\text{f) } \frac{\cancel{8}^4}{9} \times \frac{\cancel{48}^8}{50_{25}} \times \frac{7}{\cancel{6}_1} = \frac{4 \times 8 \times 7}{9 \times 25} = \boxed{\frac{224}{225}}$$

$$\text{g) } \frac{10^5}{12} \times \frac{\cancel{48}^3}{50_{25}} \times \frac{25^1}{\cancel{16}_1} = \frac{5 \times \cancel{3}^1}{12_4} = \boxed{\frac{5}{4}}$$

$$\text{h) } \frac{\cancel{2}^1}{7} \times \frac{\cancel{21}^3_7}{14} \times \frac{\cancel{8}^4}{\cancel{6}_2} = \boxed{\frac{4}{7}}$$

5) Divisão:

$$\text{a) } \frac{7}{5} \div \frac{3}{10} = \frac{7}{\cancel{5}_1} \times \frac{\cancel{10}^2}{3} = \frac{14}{3}$$

$$\text{b) } \frac{3}{4} \div \frac{9}{2} = \frac{\cancel{3}^1}{\cancel{4}_2} \times \frac{\cancel{2}^1}{\cancel{9}_3} = \frac{1}{6}$$

$$\text{c) } \frac{2}{7} \div \frac{8}{14} = \frac{2}{\cancel{7}_1} \times \frac{\cancel{14}^2}{8} = \frac{4}{8} = \frac{1}{2}$$

$$\text{d) } \frac{6}{9} \div \frac{4}{15} = \frac{\cancel{6}^3}{\cancel{9}_3} \times \frac{\cancel{15}^5}{\cancel{4}_2} = \frac{5}{2}$$

$$\text{e) } \frac{1}{3} \div \frac{3}{1} = \frac{1}{3} \times \frac{1}{3} = \frac{1}{9}$$

$$\text{f) } \frac{2}{3} \div \frac{10}{12} \div \frac{1}{15} = \frac{\cancel{2}^1}{\cancel{3}} \times \frac{\cancel{12}_4}{\cancel{10}} \times \frac{\cancel{15}}{1} = 12$$

$$\text{g) } 4 \div \frac{7}{3} \div 6 = \frac{\cancel{4}^2}{1} \times \frac{\cancel{3}^1}{7} \times \frac{1}{\cancel{6}_2} = \frac{2}{7}$$

$$\text{h) } 1 \div \frac{3}{5} \div 10 = 1 \times \frac{\cancel{5}^1}{3} \times \frac{1}{\cancel{10}_2} = \frac{1}{6}$$

6) 4700 – entrada

$$6 \times 2300 = 13.800 + 4.700 = 18.500 \text{ reais}$$

7)

<p>a) $4'9'2'' \mid 4$</p> $\begin{array}{r} -4 \\ \hline 09 \\ -8 \\ \hline 12 \\ \hline 0 \end{array}$ <p>123</p>	<p>b) $89'1'' \mid 9$</p> $\begin{array}{r} -81 \\ \hline 81 \\ \hline 0 \end{array}$ <p>99</p>	<p>c) $44'16'' \mid 6$</p> $\begin{array}{r} -42 \\ \hline 21 \\ -18 \\ \hline 36 \\ \hline 0 \end{array}$ <p>736</p>
<p>d) $23'9'7'' \mid 17$</p> $\begin{array}{r} -17 \\ \hline 69 \\ -68 \\ \hline 17 \\ -17 \\ \hline 0 \end{array}$ <p>141</p>	<p>e) $158'4'' \mid 99$</p> $\begin{array}{r} -99 \\ \hline 594 \\ -594 \\ \hline 0 \end{array}$ <p>16</p>	<p>f) $14'4'2'' \mid 14$</p> $\begin{array}{r} -14 \\ \hline 042 \\ -42 \\ \hline 0 \end{array}$ <p>103</p>
<p>g) $21'0'00'' \mid 15$</p> $\begin{array}{r} -15 \\ \hline 60 \\ -60 \\ \hline 0 \end{array}$ <p>1400</p>	<p>h) $765'0'' \mid 102$</p> $\begin{array}{r} -714 \\ \hline 510 \\ -510 \\ \hline 0 \end{array}$ <p>75</p>	<p>i) $1137'6'' \mid 237$</p> $\begin{array}{r} -948 \\ \hline 1896 \\ -1896 \\ \hline 0 \end{array}$ <p>48</p>