

$$1) \left(\frac{1}{3 \cdot 4} - 3\right) : \left(\frac{1}{3 \cdot 4} + 4\right) = \left(\frac{1}{12} - \frac{3}{1}\right) : \left(\frac{1}{12} + \frac{4}{1}\right) = \frac{1-36}{12} \cdot \frac{12}{1+48} = -\frac{35}{12} \cdot \frac{12}{49} = -\frac{35}{49} = -\frac{5}{7}$$

$$2) \frac{10}{7} - \frac{1}{10} \cdot 7 = \frac{10}{7} - \frac{7}{10} = \frac{100-49}{70} = \frac{51}{70}$$

$$3) \frac{5}{8} - \frac{1}{8} \cdot 9 \cdot 2 = \frac{5}{8} - \frac{1}{8} \cdot \frac{18}{1} = \frac{5}{8} - \frac{18}{8} = \frac{5-18}{8} = \frac{-13}{8} = -\frac{13}{8}$$

$$4) \frac{17}{\frac{2}{5} \cdot 3 - \frac{1}{3 \cdot 5}} - 14,2 = \frac{17}{\frac{6}{5} - \frac{1}{15}} - \frac{142}{10} = \frac{17}{\frac{18-1}{15}} - \frac{142}{10} = \frac{17}{17} \cdot \frac{15}{1} - \frac{142}{10} = 15 - 14,2 = 0,8 = \frac{8}{10} = \frac{4}{5}$$

5) X

$$6) \frac{\frac{2}{3}}{3 + \frac{2}{3}} + \frac{5}{11} - \left(\frac{3}{5} - \frac{12}{20}\right) \cdot \frac{123}{456} = \frac{\frac{2}{3}}{\frac{9+2}{3}} + \frac{5}{11} - \left(\frac{12-12}{20}\right) \cdot \frac{123}{456} = \frac{2}{3} \cdot \frac{3}{11} + \frac{5}{11} - 0 = \frac{6}{11} + \frac{5}{11} = \frac{11}{11} = 1$$

7) A... 15 km/h

M...  $2 \times 15 = 30$  km/h

$$\frac{3}{5} \cdot 30 = 18 \text{ km/h}$$

$$p) 1,5 - \frac{5}{6} = \frac{15}{10} - \frac{5}{6} = \frac{3}{2} - \frac{5}{6} = \frac{4}{6}$$

$$1,5 : \frac{5}{6} = \frac{3}{2} \cdot \frac{6}{5} = \frac{9}{5}$$

$$\frac{9}{5} : \frac{4}{6} = \frac{9}{5} \cdot \frac{6}{4} = \frac{27}{10}$$

$$9) \left( \frac{5}{8} - \frac{3}{4} + \frac{1}{6} \right) : \left( 1\frac{1}{8} : 93 - 1\frac{2}{3} \right) = \left( \frac{15-18+4}{24} \right) : \left( \frac{9}{8} \cdot \frac{10}{9} - \frac{5}{3} \right) =$$

$$= \frac{1}{24} : \left( \frac{15}{9} - \frac{5}{3} \right) = \frac{1}{24} : \frac{15-20}{12} = \frac{1}{24} \cdot \frac{12}{25} = \frac{1}{50}$$

10) a)  $5 - (-3) + (-4) = \underline{12}$        $5 + 3 - 4 = 4$   
 b) ok  
 c) ok

11)  $x = 0 + 5 - 3 + 2 - 1$   
 $x = \underline{3}$

12)  $x = 8 - 7 + 5 - 3 + 4 + 1$   
 $x = \underline{8}$

13)

POČÁTEČNÍ STAV 11 000,-	
PRÍJMY	VÝDAJE
71 000,-	9 995,-
27 500,-	2 793,-
	2 985,-
	581,-
	7 196,-
	22 400,-
	12 500,-
	17 300,-
	51 300,-
98 500,-	127 050,-

$$x = 11\ 000 + 98\ 500 - 127\ 050$$

$$x = \del{17\ 550\ Kč} - \underline{17\ 550\ Kč}$$