1.

$$\frac{22,2}{2,22}-\frac{333}{33,3}+\frac{0,444}{0,0444}$$

$$=\frac{\frac{222}{10}}{\frac{222}{100}}-\frac{\frac{333}{333}}{\frac{10}{10}}+\frac{\frac{444}{1000}}{\frac{444}{10000}}$$

$$=\frac{\cancel{222}}{10}\cdot\frac{100}{\cancel{222}}-\cancel{333}\cdot\frac{10}{\cancel{333}}+\frac{\cancel{444}}{1000}\cdot\frac{10000}{\cancel{444}}$$

$$=\frac{\cancel{100}}{\cancel{10}}-10+\frac{10\cancel{000}}{\cancel{1000}}$$

$$=\cancel{10}-\cancel{10}+10$$

$$=10$$

CEVAP: C

2.

$$\frac{0,3}{0,05}-\frac{0,128}{1,6}+\frac{4}{0,08}$$

$$=\frac{\frac{3}{10}}{\frac{5}{100}}-\frac{\frac{128}{1000}}{\frac{16}{10}}+\frac{4}{\frac{8}{100}}$$

$$=\frac{3}{\cancel{10}}\cdot\frac{\overset{10}{\cancel{100}}}{5}-\frac{128}{100\cancel{0}}\cdot\frac{\cancel{10}}{16}+\cancel{4}\cdot\frac{100}{\underset{2}{\cancel{8}}}$$

$$=3\cdot\frac{\overset{2}{\cancel{10}}}{\cancel{5}}-\frac{\overset{8}{\cancel{12}}8}{100}\cdot\frac{1}{\cancel{16}}+\frac{\overset{50}{\cancel{100}}}{\cancel{2}}$$

$$=3\cdot 2-\frac{8}{100}+50$$

$$=6-\frac{8}{100}+50$$

$$=56-\frac{8}{100}$$

$$=\frac{5592}{100}=55,92$$

CEVAP: D

3.

$$\frac{0,85}{1,7}+\frac{6,3}{2,1}-\frac{1}{2}$$

$$=\frac{\frac{85}{100}}{\frac{17}{10}}+\frac{\frac{63}{\cancel{10}}}{\frac{21}{\cancel{10}}}-\frac{1}{2}$$

$$=\frac{85}{10\cancel{0}}\cdot\frac{\cancel{10}}{17}+\frac{\cancel{63}}{\cancel{21}}-\frac{1}{2}$$

$$=\frac{\overset{5}{\cancel{85}}}{10}\cdot\frac{1}{\cancel{17}}+3-\frac{1}{2}$$

$$=\frac{\cancel{5}}{\cancel{10}}+3-\frac{1}{2}$$

$$=\frac{\cancel{1}}{\cancel{2}}+3-\frac{\cancel{1}}{\cancel{2}}$$

$$=3$$

CEVAP: C

4.

$$(0,2)^{-2}+(0,5)^{-3}$$

$$=\left(\frac{2}{10}\right)^{-2}+\left(\frac{5}{10}\right)^{-3}$$

$$=\left(\frac{10}{2}\right)^{2}+\left(\frac{10}{5}\right)^{3}$$

$$=5^2+2^3$$

$$=25+8$$

$$=33$$

CEVAP: E

5.

$$\frac{a+2}{0,25}\times\frac{0,8}{0,025}$$

$$(a+2)\cdot(0,025)=(0,25)\cdot(0,8)$$

$$(a+2)\cdot\frac{25}{1000}=\frac{25}{100}\cdot\frac{8}{10}$$

$$(a+2)\cdot\frac{\cancel{25}}{\cancel{1000}}=\frac{\cancel{25}\cdot 8}{\cancel{1000}}$$

$$a+2=8$$

$$a=6$$

CEVAP: B

6.

$$\frac{(0,04)^{-\frac{1}{2}}}{0,5}=\frac{\left(\frac{4}{100}\right)^{-\frac{1}{2}}}{\frac{5}{10}}=\frac{\left(\frac{100}{4}\right)^{\frac{1}{2}}}{\frac{1}{2}}$$

$$=\frac{(25)^{\frac{1}{2}}}{\frac{1}{2}}=\frac{\left(5^2\right)^{\frac{1}{2}}}{\frac{1}{2}}=\frac{5^{2\cdot\frac{1}{2}}}{\frac{1}{2}}$$

$$=\frac{5}{\frac{1}{2}}=5\cdot\frac{2}{1}=10$$

CEVAP: E

7.

$$\frac{0,52-0,02}{0,052-0,002}$$

$$=\frac{\frac{52}{100}-\frac{2}{100}}{\frac{52}{1000}-\frac{2}{1000}}$$

$$=\frac{\frac{52-2}{100}}{\frac{52-2}{1000}}=\frac{\frac{50}{100}}{\frac{50}{1000}}$$

$$=\frac{50}{100}\cdot\frac{1000}{50}=\frac{1000}{100}=10$$

CEVAP: E

8.

$$\frac{a,b+b,c+c,a}{a,bc+b,ca+c,ab}$$

$$=\frac{\frac{ab}{10}+\frac{bc}{10}+\frac{ca}{10}}{\frac{abc}{100}+\frac{bca}{100}+\frac{cab}{100}}$$

$$=\frac{\frac{ab+bc+ca}{10}}{\frac{abc+bca+cab}{100}}$$

$$=\frac{\frac{10a+b+10b+c+10c+a}{10}}{\frac{100a+10b+c+100b+10c+a+100c+10a+b}{100}}$$

$$=\frac{\frac{11(a+b+c)}{10}}{\frac{111(a+b+c)}{100}}=\frac{11\cdot\left(a+b+c\right)}{10}\cdot\frac{\overset{10}{100}}{111\left(a+b+c\right)}$$

$$=\frac{11.10}{111}=\frac{110}{111}$$

CEVAP: D

9.

$$\frac{0,02\cdot10^{-3}-0,002\cdot10^{-3}}{0,004\cdot10^{-4}-0,04\cdot10^{-6}}$$

$$=\frac{2\cdot10^{-2}\cdot10^{-3}-2\cdot10^{-3}\cdot10^{-3}}{4\cdot10^{-3}\cdot10^{-4}-4\cdot10^{-2}\cdot10^{-6}}=\frac{2\cdot10^{-5}-2\cdot10^{-6}}{4\cdot10^{-7}-4\cdot10^{-8}}$$

$$=\frac{2\cdot10^{-5}\cdot\left(1-10^{-1}\right)}{4\cdot10^{-7}\cdot\left(1-10^{-1}\right)}=\frac{2\cdot10^{-5}}{4\cdot10^{-7}}$$

$$=\frac{1}{2}\cdot10^{-5}\cdot10^{7}=\frac{1}{2}\cdot10^{-5+7}$$

$$=\frac{1}{2}\cdot10^{2}=\frac{1}{2}\cdot100$$

$$=50$$

CEVAP: D

10.

$$0,\overline{3}+\frac{1}{0,\overline{3}}=\frac{3}{9}+\frac{1}{\frac{3}{9}}$$

$$=\frac{1}{3}+\frac{1}{\frac{1}{3}}=\frac{1}{3}+1\cdot\frac{3}{1}=\frac{1}{3}+3=\frac{10}{3}$$

CEVAP: C

11. $\dfrac{1}{\underset{(25)}{40}}+\dfrac{1}{\underset{(40)}{25}}=\dfrac{25+40}{25\cdot 40}$

$=\dfrac{65}{1000}=0,065$

CEVAP: E

12.

$1-0,24+3,4=\dfrac{1}{\underset{(100)}{1}}-\dfrac{24}{\underset{(1)}{100}}+\dfrac{34}{\underset{(10)}{10}}$

$=\dfrac{100-24+340}{100}=\dfrac{440-24}{100}$

$=\dfrac{416}{100}=4,16$

CEVAP: D

13.

$\dfrac{x}{90}=5,\overline{16}$

$\dfrac{x}{\cancel{90}}=\dfrac{516-51}{\cancel{90}}$

$x=516-51$

$x=465$

CEVAP: E

14.

$\dfrac{1,21}{0,11}+\dfrac{1,44}{0,12}-\dfrac{0,64}{0,08}$

$=\dfrac{\dfrac{121}{\cancel{100}}}{\dfrac{11}{\cancel{100}}}+\dfrac{\dfrac{144}{\cancel{100}}}{\dfrac{12}{\cancel{100}}}-\dfrac{\dfrac{64}{\cancel{100}}}{\dfrac{8}{\cancel{100}}}$

$=\dfrac{\cancel{121}}{\cancel{11}}+\dfrac{\cancel{144}}{\cancel{12}}-\dfrac{\cancel{64}}{\cancel{8}}$

$=11+12-8=23-8$

$=15$

CEVAP: C

15.

$\dfrac{12}{0,4}-\dfrac{0,1}{0,05}:\dfrac{2}{0,5}$

$=\dfrac{12}{\dfrac{4}{10}}-\dfrac{\dfrac{1}{10}}{\dfrac{5}{100}}:\left(\dfrac{2}{\dfrac{5}{10}}\right)$

$=\cancel{12}^{3}\cdot\dfrac{10}{\cancel{4}}-\dfrac{1}{\cancel{10}}\cdot\dfrac{\cancel{100}^{10}}{5}:\left(2\cdot\dfrac{\cancel{10}^{2}}{\cancel{5}}\right)$

$=30-\dfrac{10}{5}:(2\cdot 2)$

$=30-2:4$

$=30-\dfrac{\cancel{2}}{\cancel{4}}=30-\dfrac{1}{2}=\dfrac{60-1}{2}$

$=\dfrac{59}{2}=29,5$

CEVAP: E

16. $a + 3{,}234 - 1{,}25$

$$= a + \frac{3234}{1000} - \underbrace{\frac{125}{100}}_{(10)} = a + \frac{3234 - 1250}{1000}$$

$$= a + \frac{1984}{1000}$$

Bu toplamın tamsayı olması için a nın virgülden sonraki kısmı 1984 ü 1000 in katı olan sayıya tamamlaması gerekir. Yani a; 1984 ü 2000 e tamamlamalıdır.

2000 – 1984 = 16

Buradan

= ....., 016 + 1,984 = Tamsayı virgülden sonraki kısım 016 dır.

CEVAP: A

17.

$$\frac{0{,}075 : 0{,}15}{0{,}2 : 2}$$

$$= \frac{\frac{75}{1000} : \frac{15}{100}}{\frac{2}{10} : 2} = \frac{\frac{75}{1000} \cdot \frac{100}{15}}{\frac{2}{10} \cdot \frac{1}{2}}$$

$$= \frac{\overset{5}{\cancel{75}} \cdot \frac{1}{\cancel{15}}}{\frac{1}{10}} = \frac{\frac{5}{10}}{\frac{1}{10}} = \frac{5}{\cancel{10}} \cdot \frac{\cancel{10}}{1} = 5$$

CEVAP: C

18.

$$\frac{\text{Sayı}}{x} = (\text{Sayı}) \cdot (0{,}125)$$

$$\frac{1}{x} = 0{,}125$$

$$\frac{1}{x} = \frac{\overset{1}{\cancel{125}}}{\underset{8}{\cancel{1000}}}$$

$$\frac{1}{x} = \frac{1}{8}$$

$$x = 8$$

8 ile bölmek 0,125 ile çarpmak demektir.

CEVAP: C

19.

$$\frac{0{,}\overline{2} + 2}{3 - 0{,}\overline{7}} = \frac{\frac{2}{9} + 2}{3 - \frac{7}{9}}$$

$$= \frac{\frac{2 + 18}{9}}{\frac{27 - 7}{9}} = \frac{\frac{20}{9}}{\frac{20}{9}}$$

$$= \frac{\cancel{20}}{\cancel{9}} \cdot \frac{\cancel{9}}{\cancel{20}} = 1$$

CEVAP: A

20.

$$\frac{x{,}0x}{0{,}0x} + \frac{y{,}y}{0{,}0y} - \frac{x{,}y}{0{,}xy}$$

$$= \frac{\frac{x0x}{100}}{\frac{x}{100}} + \frac{\frac{yy}{10}}{\frac{y}{100}} - \frac{\frac{xy}{10}}{\frac{xy}{100}}$$

$$= \frac{x0x}{100} \cdot \frac{100}{x} + \frac{yy}{10} \cdot \frac{100}{y} - \frac{\cancel{xy}}{10} \cdot \frac{100}{\cancel{xy}}$$

$$= \frac{100x + x}{100} \cdot \frac{100}{x} + \frac{10y + y}{10} \cdot \frac{100}{y} - \frac{100}{10}$$

$$= \frac{101x}{\cancel{100}} \cdot \frac{\cancel{100}}{x} + \frac{11y}{\cancel{10}} \cdot \frac{\cancel{100}}{y} - 10$$

$$= \frac{101\cancel{x}}{\cancel{x}} + \frac{11\cancel{y} \cdot 10}{\cancel{y}} - 10$$

$$= 101 + 110 - 10$$

$$= 101 + 100 = 201$$

CEVAP: D