$$\frac{+45k+30-18k-84-10k+20}{30} = \frac{0}{1}$$

$$\frac{+17k-4}{30} \times \frac{0}{1}$$

$$17k-4 = 0+4$$

$$\frac{17k}{17} = \frac{4}{17} \qquad k = \frac{4}{17}$$

$$\frac{6a-12}{24} - \frac{9}{24} = \frac{3a+9}{24} - \frac{2a+8}{24}$$

$$\frac{6a-12-9}{24} = \frac{3a+9-2a-8}{24}$$

$$6a-21 = a+1$$

$$6a-a = +1+21$$

$$\frac{5a}{5} = \frac{22}{5} \qquad a = \frac{22}{5}$$

$$\frac{3}{14} - \frac{21}{2} \cdot \frac{9}{7} \Rightarrow \frac{3}{14} - \frac{189}{14} \qquad +3-189$$

$$\Rightarrow \frac{-186}{14} \Rightarrow \frac{-93}{7}$$

$$\frac{3\frac{1}{3}}{4} - \frac{1}{-1\frac{1}{4}} \qquad \frac{\frac{-10}{3}}{4} - \frac{1}{\frac{-5}{4}} = \left[\frac{\frac{-10}{3}}{4} + \frac{1}{\frac{5}{4}}\right]$$

$$\frac{-10}{12} + \frac{4}{5} \Rightarrow \frac{-50}{60} + \frac{48}{60}$$

$$(5) \quad (12) \Rightarrow \frac{-2}{60} \Rightarrow -\frac{1}{30}$$

NOT:

$$\frac{\rightarrow}{\rightarrow} = \frac{\leftarrow}{\leftarrow}$$

$$\frac{\downarrow}{\uparrow} = \frac{\downarrow}{\uparrow}$$

$$\frac{\downarrow}{\uparrow} \neq \frac{\downarrow}{\uparrow}$$

$$\frac{\cancel{12}^{3}}{\cancel{16}_{2}} = \frac{\cancel{4}^{1}\cdot a}{\cancel{8}\cdot b_{1}} \qquad \frac{3}{2} = \frac{a}{b}$$

$$\frac{\cancel{12}^{3}}{\cancel{16}_{4}} = \frac{\cancel{4}^{1}\cdot a}{\cancel{8}\cdot b_{2}} \qquad \frac{3}{\cancel{4}_{2}} = \frac{a}{\cancel{2}\cdot b_{1}}$$

$$\frac{3}{2} = \frac{a}{b}$$

$$\frac{\downarrow}{\uparrow} \cdot \frac{\downarrow}{\uparrow}$$

$$\frac{\searrow}{\nearrow} \cdot \frac{\swarrow}{\nwarrow} \qquad \frac{3}{\cancel{4}} \cdot \frac{\cancel{4}}{7} = \frac{3}{7}$$

$$\frac{3}{4} \cdot \frac{4}{7} = \frac{\cancel{12}}{\cancel{28}\ \cancel{16}} \ \frac{3}{7}$$

$$\frac{\cancel{3}}{4} \cdot \frac{\cancel{15}}{5} = \frac{1}{20}$$

$$\frac{3}{4} = \frac{3}{5x}$$

$2-3=-1$

$2-(-3)=5$

1, 2, 3 ... 10

456789

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

$$\frac{3}{x} = -3 \qquad \frac{3}{-1} = -3$$

$$x = -1$$

20-) $\frac{3-a}{1} - \frac{a-1}{5} = \frac{a+1}{2}$ denklemini çözünüz?

$\frac{30-10a}{10} - \frac{2a-2}{10} = \frac{-5a-5}{10}$

$\frac{+30-10a-2a+2}{10} = \frac{-5a-5}{10}$

$+32-12a = -5a-5$

$+32+5 = -5a+12a \quad a = \frac{37}{7}$

$\frac{37}{7} = \frac{7a}{7}$

21-) $\frac{5}{2}\left(\frac{x}{2}-\frac{2}{1}\right) = \frac{3}{5}\left(\frac{x}{2}+\frac{1}{1}\right)$ denkleminin çözüm kümesini bulunuz?

$\frac{5x}{4} - \frac{10}{2} = \frac{3x}{10} + \frac{3}{5}$

$\frac{25x-100}{20} = \frac{+6x+12}{20}$

$25x-6x = +12+100$

$\frac{19x}{19} = \frac{112}{19}$

$x = \frac{112}{19}$

22-) $\frac{1}{2}(3k+2) - \frac{3}{5}(k+3) - \frac{1}{3}(k-2) = 0$

denkleminin kökünü bulunuz?

$\frac{3k+2}{2} - \frac{3k+9}{5} - \frac{k-2}{3} = 0$

$\frac{45k+30}{30} - \frac{18k+54}{30} - \frac{10k-20}{30} = 0$

23-) $\frac{a-2}{4} - \frac{3}{8} = \frac{a+3}{8} - \frac{a+4}{12}$

denkleminin kökünü bulunuz?

$a = 7$

24-) $\frac{3x+1}{7} - \frac{7x+2}{14} = 0$ denkleminin kökünü bulunuz?

4.Der.

$\frac{3x+1}{7} = \frac{7x+2}{14}$

$6x+2 = 7x+2$

$+2-2 = 7x-6x$

$0 = 1x \quad x = 0$

25-) $\frac{3}{\frac{2}{7}} - \frac{3}{\frac{2}{7}} : \frac{7}{9} = ?$ işleminin sonucu kaçtır?

$\frac{3}{14} - \frac{21}{2} : \frac{7}{9}$

26-) $\frac{4-\frac{2}{4}}{4+\frac{4}{2}} - \frac{1}{4}$ işleminin sonucu kaçtır? $\frac{1}{3}$

$\frac{\frac{14}{4}}{\frac{12}{2}} \Rightarrow \frac{28}{48} = \frac{7}{12}$

$\frac{7}{12} - \frac{1}{4} = \frac{7}{12} - \frac{3}{12}$

$(3) = \frac{4}{12} = \frac{1}{3}$

27-) $\frac{-3\frac{1}{3}}{4} - \frac{1}{-1\frac{1}{4}}$ işleminin sonucu kaçtır?

(*) Beşten ~~eksi üç~~ çıkarsa

~~$5-3=2$~~

$5-3$

$5-(-3)$

$5+3=8$

$2-(-2)$

$2+2=4$

$5-(-1)=6$

$\frac{3a+5}{8} - \frac{-2a+1}{8} \Rightarrow \frac{3a+5-2a-1}{8}$

$(X.Y+M).T$

$\frac{a.b}{a}=b$

ab iki basamaklı bir sayı

$\frac{ab}{a}$

35

$\frac{35}{3}$ $\frac{35}{5}$

5 3

SORU

$\frac{x.y}{y}+\frac{x.y}{x}=ax+by$

$\underbrace{1.x+1.y}_{sol}=\underbrace{ax+by}_{sa-}$

$\frac{3.5}{5}=3$

$\frac{3.5}{3}=5$

$a+b=?$

2 $\frac{1}{1}$

$\frac{.5}{+1}$

28-) $\frac{1}{6}-\left(\frac{1}{6}-\frac{1}{7}\right)$ İşleminin sonucu kaçtır?

$+\frac{1}{6}-\frac{1}{6}+\frac{1}{7} \Rightarrow \frac{1}{7}$

* Çarp – Böl

29-) $\frac{8}{5}:\frac{1}{5}-\frac{1}{5}$ İşleminin sonucu kaçtır?

$\frac{8}{5}\cdot\frac{5}{1}-\frac{1}{5} \Rightarrow \frac{40}{5}-\frac{1}{5} \Rightarrow \frac{39}{5}$

30-) $\left(1-\frac{1}{7}\right).\left(1-\frac{1}{8}\right).\left(1-\frac{1}{9}\right).\left(1-\frac{1}{10}\right).\left(1-\frac{1}{11}\right)$

İşleminin sonucu kaçtır?

$\frac{6}{7}\cdot\frac{7}{8}\cdot\frac{8}{9}\cdot\frac{9}{10}\cdot\frac{10}{11} \Rightarrow \frac{6}{11}$

31-) $x=\frac{8}{9}+\frac{10}{13}$

$y=\frac{10}{9}+\frac{16}{13}$

olduğuna göre x + y toplamı kaçtır ?

$\frac{8}{9}+\frac{10}{13}+\frac{10}{9}+\frac{16}{13}$

$\frac{18}{9}+\frac{26}{13}=$

$2+2=4$

32-) $\left(1-\frac{1}{3}\right).\left(1-\frac{1}{4}\right).\left(1-\frac{1}{5}\right)\ldots\left(1-\frac{1}{20}\right)$

İşleminin sonucu x = 20 için kaçtır?

$\frac{2}{3}\cdot\frac{3}{4}\cdot\frac{4}{5}\cdot\ldots\frac{19}{20}$

$\frac{2}{3}\cdot\frac{3}{4}\cdot\frac{4}{5}\cdot\frac{5}{6}\cdot\frac{6}{7}\cdot\frac{19}{20}$

$=\frac{2}{20}=\frac{1}{10}$

33-) $2 + \cfrac{18}{3 + \cfrac{9}{1 + \cfrac{6}{x}}} = 5$ işlemine göre x kaçtır?

$\cfrac{18}{3 + \cfrac{9}{1 + \cfrac{6}{x}}} = 3$

$3 + \cfrac{9}{1 + \cfrac{6}{x}} = 6$

$\cfrac{9}{1 + \cfrac{6}{x}} = 3$

$1 + \cfrac{6}{x} = 3$

$\cfrac{6}{x} = 2$

$x = 3$

A) 5 B) 2 C) 3 D) 4 E) 10

34-) $3 + \cfrac{2}{1 - \cfrac{6}{2 + \cfrac{1}{x-1}}} = 1$ işlemine göre x kaçtır?

$\cfrac{2}{1 - \cfrac{6}{2 + \cfrac{1}{x-1}}} = -2$

$1 - \cfrac{6}{2 + \cfrac{1}{x-1}} = -1$

$\cfrac{6}{2 + \cfrac{1}{x-1}} = 2$

$2 + \cfrac{1}{x-1} = 3$

$\cfrac{1}{x-1} = 1$

$x - 1 = 1$

$x = 2$

35-) $\cfrac{3}{2 - \cfrac{x}{x+1}} = 6$ işlemine göre x kaçtır?

$\cfrac{3}{\cfrac{2x+2-x}{x+1}} = 6$

$\cfrac{3}{\cfrac{x+2}{x+1}} = \cfrac{6}{1}$

$\cfrac{3x+3}{x+2} \neq \cfrac{6}{1}$

$6x + 12 = 3x + 3$

$6x - 3x = +3 - 12$

$\cfrac{3x}{3} = \cfrac{-9}{3}$

$x = -3$

36-) $5 + \cfrac{36}{8 - \cfrac{10}{2 - \cfrac{3}{x}}} = 11$ ise x kaçtır?

$\cfrac{36}{8 - \cfrac{10}{2 - \cfrac{3}{x}}} = 6$

$8 - \cfrac{10}{2 - \cfrac{3}{x}} = 6$

$\cfrac{10}{2 - \cfrac{3}{x}} = 2$

$2 - \cfrac{3}{x} = 5$