14-05-05-T7

Solve each equation.

1) $-\frac{2}{3}\left(a-\frac{1}{2}\right)=-\frac{7}{2}\left(a-\frac{1}{3}\right)$

2) $-\frac{5}{2}v-v=\frac{2}{3}\left(-\frac{3}{2}v+1\right)-\frac{2}{3}\left(v+\frac{1}{3}\right)$

3) $\frac{3}{2}\left(\frac{3}{2}r-\frac{10}{3}\right)=-\frac{3}{2}r+\frac{7}{3}\left(\frac{3}{2}r-2\right)$

4) $-\left(\frac{1}{3}x+\frac{3}{2}\right)+2x=2x+\frac{3}{2}\left(\frac{5}{3}x+1\right)$

5) $\frac{1}{2}\left(p-\frac{3}{2}\right)=-\left(\frac{5}{2}p-\frac{3}{2}\right)-1$

6) $r+\frac{8}{3}r=\frac{1}{3}\left(\frac{8}{3}r+\frac{5}{2}\right)-\frac{3}{2}\left(r-\frac{4}{3}\right)$

7) $m-\frac{3}{2}\left(\frac{5}{3}m-\frac{5}{3}\right)=\frac{2}{3}\left(\frac{3}{2}m-1\right)+\frac{1}{2}$

8) $2\left(\frac{3}{2}n+\frac{1}{2}\right)=\frac{1}{2}\left(-\frac{11}{3}n+1\right)$

9) $-\frac{7}{3}\left(-\frac{5}{2}x+1\right)=-\frac{5}{2}\left(\frac{1}{3}x+\frac{1}{2}\right)$

10) $-\frac{11}{3}\left(\frac{3}{2}x+\frac{1}{2}\right)=-\frac{4}{3}\left(-\frac{7}{3}x+2\right)$

11) $-\frac{4}{3}\left(n+\frac{2}{3}\right)=-\frac{4}{3}n+\frac{3}{2}\left(-\frac{3}{2}n+1\right)$

12) $\frac{2}{3}\left(2x-\frac{7}{3}\right)=\frac{3}{2}\left(\frac{1}{3}x-2\right)$

13) $-\frac{1}{3}\left(\frac{7}{3}n+2\right)-\frac{2}{3}\left(-\frac{1}{3}n+1\right)=\frac{3}{2}n+1+\frac{1}{3}n$

14) $-\frac{7}{3}\left(-\frac{3}{2}b+\frac{3}{2}\right)=\frac{7}{3}\left(\frac{5}{2}b-\frac{3}{2}\right)$

15) $\frac{1}{3}x+1+1\frac{1}{2}=3\left(-\frac{4}{3}x+2\right)-\frac{7}{2}\left(-\frac{11}{3}x+2\right)$

16) $-\frac{3}{2}x+\frac{5}{2}+\frac{1}{2}x-3=2\left(x-\frac{4}{3}\right)-\left(x+\frac{1}{3}\right)$

17) $\frac{4}{3}\left(\frac{3}{2}v-\frac{7}{2}\right)+2=-\frac{3}{2}\left(\frac{5}{3}v+1\right)$

18) $-2\left(-\frac{3}{2}x+1\right)+\frac{2}{3}\left(-\frac{1}{2}x+1\right)=-\frac{7}{2}x+\frac{1}{2}+\frac{5}{2}x+\frac{2}{3}$

19) $\frac{1}{2}\left(\frac{1}{2}n+\frac{3}{2}\right)-\frac{7}{2}=-\frac{8}{3}\left(-\frac{3}{2}n+1\right)$

20) $-\frac{1}{3}\left(n+\frac{5}{3}\right)=-\frac{5}{3}n+\frac{1}{3}\left(n-\frac{5}{3}\right)$

Answers to 14-05-05-T7

1) $\left\{\frac{5}{17}\right\}$

2) $\left\{-\frac{8}{33}\right\}$

3) $\left\{\frac{4}{3}\right\}$

4) $\left\{-\frac{18}{17}\right\}$

5) $\left\{\frac{5}{12}\right\}$

6) $\left\{\frac{51}{77}\right\}$

7) $\left\{\frac{16}{15}\right\}$

8) $\left\{-\frac{3}{29}\right\}$

9) $\left\{\frac{13}{80}\right\}$

10) $\left\{\frac{3}{31}\right\}$

11) $\left\{\frac{86}{81}\right\}$

12) $\left\{-\frac{26}{15}\right\}$

13) $\left\{-\frac{42}{43}\right\}$

14) $\{0\}$

15) $\left\{\frac{7}{17}\right\}$

16) $\left\{\frac{5}{4}\right\}$

17) $\left\{\frac{7}{27}\right\}$

18) $\left\{\frac{15}{22}\right\}$

19) $\left\{-\frac{1}{45}\right\}$

20) $\{0\}$