12-03-21B-T8

Solve each equation.

1) $\frac{7}{3}\left(\frac{1}{3}a-3\right)=\frac{2}{3}\left(a-\frac{10}{3}\right)$

2) $-\frac{11}{3}\left(k+\frac{2}{3}\right)=\frac{8}{3}\left(\frac{3}{2}k+\frac{5}{2}\right)$

3) $-\frac{4}{3}+\frac{5}{3}\left(\frac{4}{3}x+\frac{3}{2}\right)=3-\frac{11}{3}\left(-\frac{3}{2}x+\frac{7}{3}\right)$

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

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

6) $-\frac{3}{2}\left(n-\frac{5}{2}\right)+2\left(-n+\frac{4}{3}\right)=\frac{7}{3}n-\frac{5}{2}n$

7) $-\frac{11}{3}m-2\left(m-\frac{8}{3}\right)=\frac{1}{2}-\frac{3}{2}\left(-\frac{5}{3}m+1\right)$

8) $-\frac{11}{3}r-\frac{5}{2}r=\frac{2}{3}\left(\frac{7}{3}r+\frac{5}{3}\right)-\frac{3}{2}\left(\frac{1}{2}r-\frac{5}{2}\right)$

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

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

11) $\frac{7}{3}\left(\frac{5}{2}b+\frac{4}{3}\right)+\frac{5}{2}=\frac{2}{3}\left(-2b+\frac{8}{3}\right)+\frac{1}{2}$

12) $-\frac{5}{3}\left(-\frac{11}{3}v-\frac{4}{3}\right)=-2\left(-\frac{10}{3}v+\frac{8}{3}\right)-v$

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

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

15) $x-\frac{5}{3}-\frac{3}{2}x+1=-\frac{10}{3}\left(\frac{1}{2}x-\frac{3}{2}\right)+\frac{5}{2}\left(-2x+\frac{4}{3}\right)$

16) $-\frac{11}{3}\left(k-\frac{10}{3}\right)=-\frac{11}{3}\left(k+\frac{1}{2}\right)$

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

18) $-3\left(-\frac{3}{2}x+1\right)+\frac{1}{2}\left(-\frac{11}{3}x+1\right)=-\frac{4}{3}x-2-2x$

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

20) $2m-\frac{5}{3}m=\frac{5}{3}\left(m+\frac{1}{3}\right)-\frac{3}{2}\left(\frac{5}{3}m-\frac{7}{2}\right)$

Answers to 12-03-21B-T8

1) $\{43\}$

2) $\left\{-\frac{82}{69}\right\}$

3) $\left\{\frac{121}{59}\right\}$

4) $\left\{\frac{25}{21}\right\}$

5) $\left\{-\frac{57}{56}\right\}$

6) $\left\{\frac{77}{40}\right\}$

7) $\left\{\frac{38}{49}\right\}$

8) $\left\{-\frac{175}{251}\right\}$

9) $\left\{-\frac{15}{59}\right\}$

10) $\left\{-\frac{1}{13}\right\}$

11) $\left\{-\frac{20}{43}\right\}$

12) $\{-17\}$

13) $\left\{\frac{79}{18}\right\}$

14) $\{9\}$

15) $\left\{\frac{54}{37}\right\}$

16) No solution.

17) $\left\{-\frac{31}{25}\right\}$

18) $\left\{\frac{1}{12}\right\}$

19) $\left\{\frac{39}{14}\right\}$

20) $\left\{\frac{209}{42}\right\}$