Supplementary Exercise 10C

Solve each equation.

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

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

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

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

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

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

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

8) $-\frac{7}{2}x+\frac{5}{3}\left(\frac{3}{2}x-2\right)=-\frac{10}{3}\left(2x-\frac{7}{2}\right)$

9) $2\left(\frac{4}{3}k+2\right)-\frac{4}{3}\left(k+\frac{3}{2}\right)=-\frac{7}{2}k-1+\frac{1}{3}$

10) $-\frac{11}{3}+\frac{3}{2}\left(x+\frac{2}{3}\right)=\frac{5}{2}\left(\frac{3}{2}x-1\right)+\frac{5}{2}$

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

12) $\frac{5}{2}\left(\frac{5}{3}k+1\right)=\frac{5}{3}-\frac{10}{3}\left(\frac{1}{2}k+1\right)$

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

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

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

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

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

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

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

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

21) $-1+\frac{2}{3}\left(v+\frac{3}{2}\right)=\frac{5}{3}v-\frac{3}{2}\left(\frac{5}{3}v-\frac{3}{2}\right)$

22) $2\left(x-\frac{4}{3}\right)-2\left(\frac{5}{2}x+1\right)=\frac{5}{2}x-\frac{3}{2}x$

23) $2x+\frac{1}{3}\left(2x+\frac{1}{2}\right)=\frac{2}{3}\left(\frac{1}{3}x+\frac{1}{3}\right)$

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

Answers to Supplementary Exercise 10C

1) $\left\{-\frac{2}{17}\right\}$

2) $\left\{-\frac{8}{27}\right\}$

3) $\left\{\frac{2}{13}\right\}$

4) $\left\{\frac{14}{3}\right\}$

5) $\left\{\frac{23}{15}\right\}$

6) $\left\{-\frac{16}{15}\right\}$

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

8) $\left\{\frac{45}{17}\right\}$

9) $\left\{-\frac{16}{29}\right\}$

10) $\left\{-\frac{32}{27}\right\}$

11) $\{-37\}$

12) $\left\{-\frac{5}{7}\right\}$

13) $\left\{\frac{158}{169}\right\}$

14) $\left\{\frac{6}{65}\right\}$

15) $\left\{-\frac{95}{218}\right\}$

16) $\left\{-\frac{29}{13}\right\}$

17) $\{-1\}$

18) $\left\{\frac{19}{80}\right\}$

19) $\left\{\frac{13}{23}\right\}$

20) $\left\{-\frac{5}{6}\right\}$

21) $\left\{\frac{3}{2}\right\}$

22) $\left\{-\frac{7}{6}\right\}$

23) $\left\{\frac{1}{44}\right\}$

24) $\left\{-\frac{14}{23}\right\}$