

## Dealing with Negatives 6 - Solutions

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$$\begin{aligned}(-10) - (-10) - 33 + (-81) - (-35) &= \textcolor{red}{-79} && \begin{array}{r}^1\ 33 \\ + 81 \\ \hline 114 \end{array} & \begin{array}{r}^0\ ^1\ 4 \\ - 35 \\ \hline 79 \end{array} \\&= -10 + 10 - 33 - 81 + 35 \\&= 35 - (33 + 81) \\&= 35 - \textcolor{blue}{114} \\&= \textcolor{red}{-79}\end{aligned}$$

$$\begin{aligned}-7 - 17 + (-20) + (-63) + 60 + (-79) &= \textcolor{red}{-126} && \begin{array}{r}^1\ ^2\ 7 \\ 17 \\ 20 \\ + 79 \\ \hline 186 \end{array} \\&= -7 - 17 - 20 - 63 + 60 - 79 \\&= 60 - (7 + 17 + 20 + 63 + 79) \\&= 60 - \textcolor{blue}{186} \\&= \textcolor{red}{-126}\end{aligned}$$

$$\begin{aligned}(-6) + (-65) - (-66) + 28 - (-15) - 70 &= \textcolor{red}{-32} && \begin{array}{r}^1\ ^1\ 66 \\ 28 \\ + 15 \\ \hline 109 \end{array} & \begin{array}{r}^1\ ^1\ 65 \\ 70 \\ + 6 \\ \hline 141 \end{array} & \begin{array}{r}^3\ ^1\ 1 \\ - 109 \\ \hline 32 \end{array} \\&= -6 - 65 + 66 + 28 + 15 - 70 \\&= (66 + 28 + 15) - (6 + 65 + 70) \\&= \textcolor{blue}{109} - \textcolor{blue}{141} \\&= \textcolor{red}{-32}\end{aligned}$$

$$\begin{aligned}2 - 84 - 59 + 80 - (-54) - 88 &= \textcolor{red}{-95} && \begin{array}{r}^1\ 80 \\ 54 \\ + 2 \\ \hline 136 \end{array} & \begin{array}{r}^2\ ^2\ 84 \\ 84 \\ + 59 \\ \hline 231 \end{array} & \begin{array}{r}^1\ ^2\ ^1\ 1 \\ - 136 \\ \hline 95 \end{array} \\&= 2 - 84 - 59 + 80 + 54 - 88 \\&= (2 + 80 + 54) - (84 + 59 + 88) \\&= \textcolor{blue}{136} - \textcolor{blue}{231} \\&= \textcolor{red}{-95}\end{aligned}$$

$$\begin{aligned}(-8) + (-7) - (-47) + (-81) - 13 - (-73) &= \textcolor{red}{11} && \begin{array}{r}^1\ ^1\ 47 \\ + 73 \\ \hline 120 \end{array} & \begin{array}{r}^1\ ^1\ 81 \\ 13 \\ 8 \\ + 7 \\ \hline 109 \end{array} & \begin{array}{r}^1\ ^1\ 1 \\ - 109 \\ \hline 11 \end{array} \\&= -8 - 7 + 47 - 81 - 13 + 73 \\&= (47 + 73) - (8 + 7 + 81 + 13) \\&= \textcolor{blue}{120} - \textcolor{blue}{109} \\&= \textcolor{red}{11}\end{aligned}$$

$$\begin{aligned}6 - (-29) + 20 - (-5) - 1 + (-63) &= \textcolor{red}{-4} && \begin{array}{r}^2\ 29 \\ 20 \\ 6 \\ + 5 \\ \hline 60 \end{array} & \begin{array}{r}64 \\ - 60 \\ 4 \end{array} \\&= 6 + 29 + 20 + 5 - 1 - 63 \\&= (6 + 29 + 20 + 5) - (1 + 63) \\&= \textcolor{blue}{60} - \textcolor{blue}{64} \\&= \textcolor{red}{-4}\end{aligned}$$

$$\begin{aligned}(-8) + (-53) - 14 + 86 - (-96) + 55 &= \textcolor{red}{162} && \begin{array}{r}^2\ ^1\ 96 \\ 86 \\ + 55 \\ \hline 237 \end{array} & \begin{array}{r}^1\ 53 \\ 14 \\ + 8 \\ \hline 75 \end{array} & \begin{array}{r}^1\ ^1\ 37 \\ - 75 \\ \hline 162 \end{array} \\&= -8 - 53 - 14 + 86 + 96 + 55 \\&= (86 + 96 + 55) - (8 + 53 + 14) \\&= \textcolor{blue}{237} - \textcolor{blue}{75} \\&= \textcolor{red}{162}\end{aligned}$$