

Strategies for Number Talks

Addition

Making Tens

$$\begin{array}{r} 9 + 5 = \\ \text{14} \\ 10 + 4 = 14 \end{array}$$

$$\begin{array}{r} 11 + 14 = \\ \text{25} \\ 5 + 20 = 25 \end{array}$$

Friendly Numbers

$$\begin{array}{r} 29 + 8 = \\ +1 -1 \\ 30 + 7 = 37 \end{array}$$

$$\begin{array}{r} 58 + 36 = \\ +2 -2 \\ 60 + 34 = 94 \end{array}$$

$$\begin{array}{r} 126 + 249 = \\ -1 +1 \\ 125 + 250 = 375 \end{array}$$

Place Value

$$\begin{array}{r} 28 + 29 = \\ 20 + 20 = 40 \\ 8 + 9 = 17 \end{array} \left. \vphantom{\begin{array}{r} 28 + 29 = \\ 20 + 20 = 40 \\ 8 + 9 = 17 \end{array}} \right\} 57$$

$$\begin{array}{r} 119 + 126 = \\ 100 + 100 = 200 \\ 10 + 20 = 30 \\ 9 + 6 = 15 \\ \hline 245 \end{array}$$

$$\begin{array}{r} 218 + 293 = \\ 200 + 200, 10 + 90, 8 + 3 \\ 400 + 100 + 11 = \\ 511 \end{array}$$

Compensation

$$\begin{array}{r} 28 + 29 = \\ +2 \\ 30 + 29 = 59 - 2 = 57 \end{array}$$

$$\begin{array}{r} 119 + 126 = \\ +1 -1 \\ 120 + 125 = 245 \end{array}$$

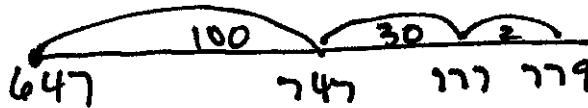
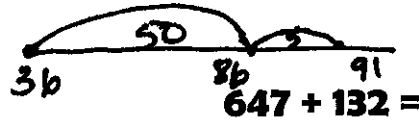
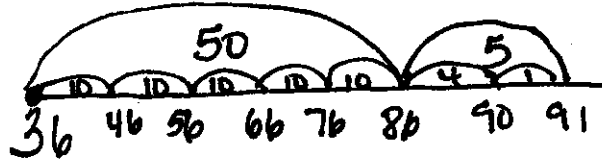
$$\begin{array}{r} 218 + 293 = \\ -7 +7 \\ 211 + 300 = 511 \end{array}$$

Strategies for Number Talks

Addition, continued

Adding Up in Chunks

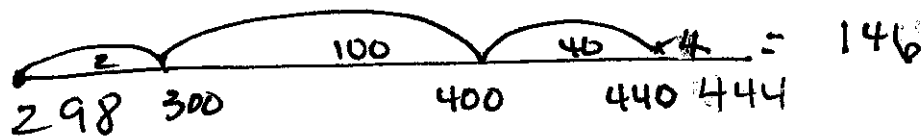
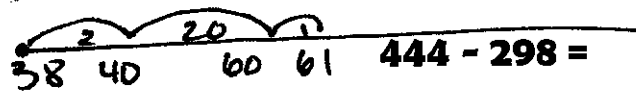
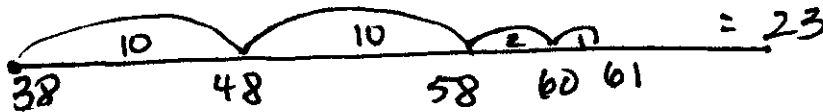
$$36 + 55 =$$



Subtraction

Adding Up

$$61 - 38 =$$



Strategies for Number Talks

Removal or Counting Back

$$21 - 6 =$$

$$21 - (1 + 5)$$

$$20 - 5 = 15$$

$$65 - 32 =$$

$$65 - 30 = 35$$

$$35 - 2 = 33$$

Place Value

$$123 - 59 =$$

$$123 - 50 = 73$$

$$73 - 9 = 64$$

Adjusting for Easier Numbers

$$60 - 28 =$$

$$+ 2$$

$$60 - 30 = 30 + 2 = 32$$

$$151 - 96 =$$

$$+ 4$$

$$151 - 100 = 51 + 4 =$$

$$55$$

Keeping the Same Difference

$$12 - 7 =$$

$$- 2 \quad - 2$$

$$10 - 5 = 5$$

$$123 - 59 =$$

$$+ 1 \quad + 1$$

$$124 - 60 = 64$$

Strategies for Number Talks

Multiplication

Repeated Addition

$$3 \times 6 =$$

$$3 + 3 + 3 + 3 + 3 + 3 = \textcircled{18}$$

$$6 + 6 + 6 = \textcircled{18}$$

Friendly Numbers

$$7 \times 9 =$$

$$7 \times 10 = 70$$

$$70 - 7 = \textcircled{63}$$

(Not a 3rd grade equation) $9 \times 15 =$

$$10 \times 15 = 150$$

$$150 - 15 = \textcircled{135}$$

Partial Products

$$8 \times 6 =$$

$$8 \times 5 = 40$$

$$8 \times 1 = + 8$$

$$\textcircled{48}$$

(Not a 3rd grade equation) $9 \times 15 =$

$$9 \times 10 = 90$$

$$9 \times 5 = + 45$$

$$\textcircled{135}$$

DIVISION

Repeated Subtraction or Sharing

$$48 \div 6 = \textcircled{8}$$

$$\begin{array}{r} 48 \\ - 6 \textcircled{1} \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ - 6 \textcircled{2} \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ - 6 \textcircled{3} \\ \hline \end{array}$$

$$\begin{array}{r} 30 \\ - 6 \textcircled{4} \\ \hline \end{array}$$

$$\begin{array}{r} 30 \\ - 6 \textcircled{1} \\ \hline \end{array}$$

$$\begin{array}{r} 24 \\ - 6 \textcircled{2} \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ - 6 \textcircled{3} \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ - 6 \textcircled{4} \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 6 \textcircled{5} \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ - 6 \textcircled{6} \\ \hline \end{array}$$

DIVISION

Partial Quotients

$$72 \div 8 = \textcircled{9}$$

$$\begin{array}{r} 8 \overline{) 72} \\ - 40 \\ \hline 32 \\ - 32 \\ \hline 0 \end{array} \quad \begin{array}{l} \textcircled{5} \\ \hline \textcircled{4} \end{array} = \textcircled{9}$$

$$284 \div 16 = \text{Not 3rd grade equation}$$

$$\begin{array}{r} 16 \overline{) 284} \\ - 160 \\ \hline 124 \\ - 80 \\ \hline 44 \\ - 32 \\ \hline 12 \end{array} \quad \begin{array}{l} \textcircled{10} \\ \hline \textcircled{5} \\ \hline \textcircled{2} \end{array} \quad 17 \text{ r } 4$$