



Name _____

Mental Math: Using Compatible Numbers and Compensation

R 2-2

It's easier to add and subtract mentally using **compatible numbers**.

Find $51 + 17 + 19$

Look for compatible numbers.

Add these numbers first.

$$\begin{array}{l} \swarrow \quad \searrow \\ 51 + 17 + 19 = 70 + 17 \\ \quad \quad \quad = 87 \end{array}$$

Sometimes it's easier to use **compensation**. Change one number to make it easier to add or subtract. Then adjust the other number.

$$\begin{array}{r} 28 \text{ add 2} \quad 30 \\ + 13 \text{ subtract 2 to adjust} \quad + 11 \\ \hline \quad \quad \quad 41 \end{array}$$

$$\begin{array}{r} 28 \text{ add 2} \quad 30 \\ - 13 \text{ add 2 to adjust} \quad - 15 \\ \hline \quad \quad \quad 15 \end{array}$$

Use mental math to find each sum or difference.

- $88 + 56 = \underline{\quad}$
- $24 + 17 = \underline{\quad}$
- $73 - 29 = \underline{\quad}$
- $62 - 47 = \underline{\quad}$
- $46 + 49 = \underline{\quad}$
- $56 - 19 = \underline{\quad}$
- $62 + 47 + 8 = \underline{\quad}$
- $31 + 43 + 19 = \underline{\quad}$
- $16 + 44 + 9 = \underline{\quad}$
- $28 + 11 + 22 = \underline{\quad}$
- $7 + 10 + 33 = \underline{\quad}$
- $25 + 19 + 15 = \underline{\quad}$
- $18 + 37 + 33 = \underline{\quad}$
- $22 + 58 + 5 = \underline{\quad}$
- $9 + 64 + 46 = \underline{\quad}$
- $81 + 17 + 29 = \underline{\quad}$