Names (pair) _____ Date _____

Mental Calculation: Adding and Subtracting

Example

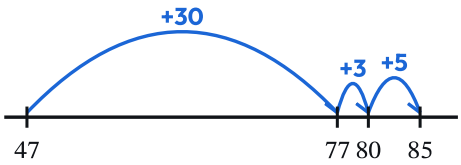
Three ways to work out $47 + 38$:

Split

$47 + 30 + 8$

$= 77 + 8 = 85$

Jumps on a line



Round and adjust

$47 + 40 - 2$

$= 87 - 2 = 85$

1 ON YOUR OWN Work out with jumps on an empty number line. Draw the jumps and write the numbers.

$56 + 27 =$ ☐

$83 - 46 =$ ☐

$145 + 38 =$ ☐

2 IN PAIRS **Round and adjust.** Complete.

$199 + 46 = 200 + 46 -$ ☐ $=$ ☐

$398 + 125 = 400 + 125 -$ ☐ $=$ ☐

$73 - 29 = 73 - 30 +$ ☐ $=$ ☐

$500 - 198 = 500 - 200 +$ ☐ $=$ ☐

Why do we **add** 1 at the end of $73 - 29$ instead of subtracting it? Explain with a number line or a bar model.

Names (pair) _____ Date _____

Remember

Addends can **swap places** and we can **group** them as we like:
$8 + 27 + 2 = 27 + (8 + 2) = 37$. This does not work for subtraction: $10 - 3$ is not the same as $3 - 10$. The sign $=$ means **is equal to**: both sides must be the same number.

3 ON YOUR OWN Calculate in a clever order. Underline the addends you added first.

$36 + 18 + 4 =$ ☐ $25 + 47 + 75 =$ ☐

$19 + 56 + 81 + 44 =$ ☐ $7 + 8 + 3 + 2 + 5 =$ ☐

4 IN PAIRS **The equals sign.** Write a number so that both sides are the same. Try without working out the sum.

$8 + 4 =$ ☐ $+ 5$ $30 + 20 = 25 +$ ☐ ☐ $- 7 = 20 - 10$

$45 + 17 = 47 +$ ☐ $60 - 18 = 62 -$ ☐ $100 = 37 +$ ☐ $+ 13$

Luke wrote: $7 + 5 = 12 + 3 = 15$. Is this correct? **yes** / **no** Why?

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5 IN A GROUP CHALLENGE Why is $82 - 39 = 83 - 40$? Show on a number line what happens to the difference when both numbers go up by 1. Use this for $514 - 298$.

$514 - 298 =$ ☐ $=$ ☐

The Number Line app · otooly.com/number-line

Choose the range 0 to 100, put points at 47 and 85 and turn on the distance between two selected points. How far is it from 47 to 85?

★ ON YOUR OWN **Exit card.** $299 + 57 =$ ☐ $15 + 9 =$ ☐ $+ 10$