



Make the Calculation Plan Visible

**COMPLETE TO COLLECT****Tumbled Jade**

Level 2 · 4 Glints

A printed expression needs grouping marks so that it follows a calculation plan. The numbers and operation signs are already fixed. Make one correct version.

Parentheses (), brackets [], and braces { } all mark groups. If matching marks surround the same parts of an expression, changing the kind of mark does not change the calculation order.

Use the organizer on this page. Use scratch paper as needed.

A. Use the usual order of operations to evaluate the expression as printed:

$$90 - 2 \times 6 + 3 + 8 \div 4$$

Show the multiplication and division you do before the remaining addition and subtraction, and write the final value.

$$90 - 2 \times 6 + 3 + 8 \div 4$$

Final value



B. A calculation plan says:

1. Add 6 and 3.
2. Multiply 2 by that result, then add 8.
3. Subtract that entire result from 90.
4. Divide that entire difference by 4.

Add only grouping marks to this second copy to make one expression that follows all four steps:

Use exactly one matching pair of parentheses, one matching pair of brackets, and one matching pair of braces. Keep every number and operation sign in the same place.

90 - 2 × 6 + 3 + 8 ÷ 4

C. Use your completed expression. Evaluate it from the innermost group outward, and record the result after each step of the calculation plan as one trail:

→ → →

D. How is the first operation involving the 6 different in the two expressions? Name both calculations. Write a sentence, or complete both labels:

Printed expression: _____ happens first.
Completed expression: _____ happens first.

