Where Did the Parentheses Go?

Student Activity

Name _____

Class _____

Part 1 – The Right Combination

Use the first four numbers given, with the 4 operations (+, −, ×, ÷) and parentheses, to arrive at the given answer.
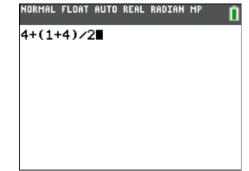
1. 6 6 2 1 Answer: 4

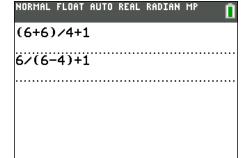**2.** 3 2 2 5 Answer: 2

3. 3 6 1 2 Answer: 5

4. 2 3 5 2 Answer: 1

5. With a partner, compare the number sentences for Exercises 1–4. Did you come up with the same sentence? If not, are both correct? _____

_____

6. Sarah is given the numbers 4, 1, 2, and 4 to make 6. She has entered the following number sentence on her calculator. Will she get the expected 6? If not, how can she correct her mistake? _____

_____

_____

NORMAL FLOAT AUTO REAL RADIAN MP

4+(1+4)/2█

7. Steven and Jalil are discussing their results. For the numbers 6, 6, 4, and 1, they are supposed to create a result of 4. Steven has entered the first line and Jalil entered the second line. Is either correct? Explain.

_____

_____

_____

NORMAL FLOAT AUTO REAL RADIAN MP

(6+6)/4+1

6/(6−4)+1

8. Ayana was given the numbers 4, 1, 5, and 5 to total 3. She thinks all the following are possible number sentences. Do you agree? Explain.

(5+4)–5–1 = 3   (5–5)+(4–1)   5–5+4–1   5+4–5–1

_____

_____

_____

Part 2 – Where Have All the Parentheses Gone?

Given, 6, 4, 1, 6 to make 3, Jason, Rosie, and Khemal have all solved this problem differently.
Place parenthesis, if needed, to make their number sentence correct.

9. Jason: $6 + 4 - 6 - 1$ _____ Correct sentence: _____

10. Rosie: $4 \times 1 - 6 \div 6$ _____ Correct sentence: _____

11. Khemal: $6 \div 6 \times 4 - 1$ _____ Correct sentence: _____

12. Use the Associate Property to make it easier to see that the answer to Jason's number sentence in Exercise 9 is 3. _____

In the following, insert parentheses to make each statement true. Use your calculator to verify.

13. $5 + 9 \div 7 + 1 = 3$

14. $2 \times 10 + 6 - 3 \times 6 \div 2 = 23$

15. $15 \div 5 + 30 \div 6 \times 2 = 13$

16. $32 \div 2 + 6 + 6 = 10$

17. $12 \div 4 + 2 \times 8 = 16$

18. $24 \div 2 + 4 \div 2 = 2$

Part 3 – Using Properties

Complete each equation using the given property. Use the calculator to check your answers.

19. Commutative Property of Addition

$5 + 3 + 2 =$ _____

20. Commutative Property of Multiplication

$12 \times 5 =$ _____

21. Associative Property of Addition

$(5 + 3) + 2 =$ _____

22. Distributive Property

$6 \times (4 + 1) =$ _____

23. Associative Property of Multiplication

$7 \times (2 \times 6) =$ _____