

Activity: Five 2s

Example 1: Use five threes to make the number 20.

Solution:

$$33 \div 3 + 3 \cdot 3 = 11 + 9 = 20$$

Example 2: Use five threes to make the number 3.

Solution:

$$3 + 3 - 3 - 3 + 3 = 3$$

Problem: Use five twos to make expressions resulting in numbers from 0 to 26. The digit 2 must be written five times in each expression. You cannot use any other digits. You can use the following operators: +, −, ·, ÷, exponents, and brackets.

Note: Some of the numbers have multiple solutions. All of the numbers except 13 and 26 can be made without using brackets. The number 17 requires use of exponents.

0 =

14 =

1 =

15 =

2 =

16 =

3 =

17 =

4 =

18 =

5 =

19 =

6 =

20 =

7 =

21 =

8 =

22 =

9 =

23 =

10 =

24 =

11 =

25 =

12 =

26 =

13 =

What other numbers could you make out of five twos?

What is the largest number you can make using five twos?