

25 Inside Out



Pairs

Start

You can simplify an expression that has different kinds of grouping symbols. Start by doing the computations within the innermost symbols and work your way outwards

Work Together

I. Simplify these expressions:

1. $35 - [4 + \{25 - (20 - 7)\}]$

2. $6 \cdot (7 + 3) \div 2$

3. $25 + [(2.5 + 3.7) + (4.1 - 2)]$

4. $50 \div [(7 + 3) \cdot 0.5]$

5. $10 + \left[15 + \left(\frac{1}{4} + \frac{2}{3}\right)\right]$

6. $8.5 - \{30 \div [15 \div (9 \div 3)]\}$

II. Using parentheses and brackets, write a mathematical expression for each of the following:

1. Eight multiplied by the sum of five and six

2. Eighty divided by one more than the sum of nine and ten

3. Three multiplied by one less than the difference of eighteen and six

III. Write a word problem that involves the nested grouping symbols, parentheses and brackets. Have your partner write the expression for your word problem. Then have your partner simplify the expression. Check your partner's work.

Sample word problem:

A new amusement ride attracted a big crowd on opening day. At 9:00, there were 25 people in the line. By 9:30, the number of people in line doubled. By 10:00, 42 more people joined the line. Then the line was split into two equal, shorter lines. How many people were in each of the shorter lines?