

LESSON
1.2**Challenge Practice***For use with the lesson "Apply Order of Operations"*

In Exercises 1 and 2, insert grouping symbols in the expression $4 + 7 \times 3^2 - 2 + 5 \times 6$ so that the value of the expression is a .

1. $a = 25$

2. $a = 83$

3. Insert grouping symbols in the expression $24 \div 3 + 9 - 4 \times 6 + 10$ so that the value of the expression is (a) the minimum value and (b) the maximum value.
4. A type of tree doubles its diameter every 10 years. If the tree is currently 1 inch in diameter, in how many years will the tree be 16 inches in diameter?
5. Due to improvements in design and manufacturing, the speed of a new computer doubles every $1\frac{1}{2}$ years. In how many years from now will computers be approximately 1000 times faster than they are now?
6. Due to improvements in manufacturing, the cost of a model of computer decreases by $\frac{1}{2}$ every $1\frac{1}{2}$ years. How many years will it take before a \$2000 computer decreases in price to \$250?