

1. Add arithmetical symbols between the 2's to make every equation true. You may use plus, minus, times, and divide symbols, as well as parentheses and brackets for grouping.

a. $2\ 2\ 2\ 2 = 0$ $\boxed{2 - 2 + 2 - 2}$

b. $2\ 2\ 2\ 2 = 1$ $\boxed{(2 \div 2) \times (2 \div 2)}$

c. $2\ 2\ 2\ 2 = 2$ $\boxed{(2 \div 2) + (2 \div 2)}$

d. $2\ 2\ 2\ 2 = 3$ $\boxed{(2 \times 2) - (2 \div 2)}$

e. $2\ 2\ 2\ 2 = 4$ $\boxed{2 \times 2 \times 2 \div 2}$

f. $2\ 2\ 2\ 2 = 5$ $\boxed{(2 \times 2) + (2 \div 2)}$

g. $2\ 2\ 2\ 2 = 6$ $\boxed{2 \times (2 + (2 \div 2))}$

h. $2\ 2\ 2\ 2 = 10$ $\boxed{(2 \times 2 \times 2) + 2}$

i. $2\ 2\ 2\ 2 = 12$ \square

2. \boxed{A}

3. \boxed{C}

4. \boxed{A}

5. \boxed{A}

6. \boxed{D}

7. 1, 11, 22, 34, 47, ($\boxed{61}$).

8. 1, 3, 9, 27, 81, ($\boxed{243}$).

9. $\boxed{\text{green}}$

10. Notice the pattern: 1, 3, 6, ... These are triangular numbers. The fifth triangular number is $\boxed{10}$.