SAT PREP

Assignment : **Order of Operation**

1. Simplify. Remember to work from the innermost grouping symbols to the outermost.

   a $4 + [12 - (8 - 5)]$
   b $6 + [2 - (2 \times 0)]$
   c $8 + [60 - (2 + 8)]$
   d $200 - [(4 + 12) - (6 + 2)]$
   e $200 \times \{100 - [4 \times (2 + 8)]\}$
   f $\{6 + [5 \times (2 + 30)]\} \times 10$
   g $[(30 + 12) - (7 + 9)] \times 10$
   h $6 \times [(20 \div 4) - (6 - 3) + 2]$

2. Insert brackets into the following calculations to make them true.

   a $3 \times 4 + 6 = 30$
   b $25 - 15 \times 9 = 90$
   c $40 - 10 \times 3 = 90$
   d $14 - 9 \times 2 = 10$
   e $12 + 3 \div 5 = 3$
   f $19 - 9 \times 15 = 150$
   g $10 + 10 \div 6 - 2 = 5$
   h $3 + 8 \times 15 - 9 = 66$
   i $9 - 4 \times 7 + 2 = 45$

3. Place the given numbers in the correct spaces to make a correct number sentence.

   a $0, 2, 5, 10$ $\square - \square \div \square = \square$

   b $9, 11, 13, 18$ $\square - \square \div \square = \square$

4. Each * represents a missing operation. Work out what it is.

   a $12 * (28 * 24) = 3$
   b $84 * 10 * 8 = 4$
   c $3 * 7(0.7 * 1.3) = 17$
   d $23 * 11 * 22 * 11 = 11$
   e $40 * 5 * (7 * 5) = 4$
   f $9 * 15 * (3 * 2) = 12$

5. Calculate:

   a $\dfrac{7 \times \sqrt{16}}{2^3 + 7^2 - 1}$

   b $\dfrac{5^2 \times \sqrt{4}}{1 + 6^2 - 12}$

   c $\dfrac{2 + 3^2}{5^2 + 4 \times 10 - \sqrt{25}}$

6. State whether the following are true or false.

   a $(1 + 4) \times 20 + 5 = 1 + (4 \times 20) + 5$
   b $6 \times (4 + 2) \times 3 > (6 \times 4) \div 2 \times 3$
   c $8 + (5 - 3) \times 2 < 8 + 5 - (3 \times 2)$
   d $100 + 10 \div 10 > (100 + 10) \div 10$