1. What is the simplified form of each expression?

   a. $3^4 = 3 \cdot 3 \cdot 3 \cdot 3$

      $= \boxed{81}$

   b. $\left(\dfrac{3}{4}\right)^2 = \dfrac{3 \cdot 3}{4 \cdot 4} = \boxed{\dfrac{9}{16}}$

2. What is the simplified form of each expression?

   a. $24 - 2(9-7)^3$

      $= 24 - 2(2)^3$

      $= 24 - 2(8)$

      $= 24 - 16$

      $= \boxed{8}$

   b. $2\left[3^2 - (10+2) \div 4\right] = 2\left[9 - (12) \div 4\right]$

      $= 2\left[9 - 3\right]$

      $= 2(6)$

      $= \boxed{12}$

3. What is the value of $3a(b^2 - c)^2$ for $a = 10$, $b = 4$, and $c = 12$?

   $= 3(10) - (4^2 - 12)^2$

   $= 30 - (16 - 12)^2$

   $= 30 - (4)^2 = 30 - 16 = \boxed{14}$

4. **Do you understand?** Tamera spent ¼ of her school budget on notebooks. If she had a budget of $60.00, how much will she have left to spend?

   $\frac{1}{4}(60) = 15$ $60 - 15 = 45$

   Tamera will have $45 left to spend.