Geometric sequence and series

1. Given a geometric sequence with $u_1 = 3$ and $r = 2.25$

   (a) Find u_5.
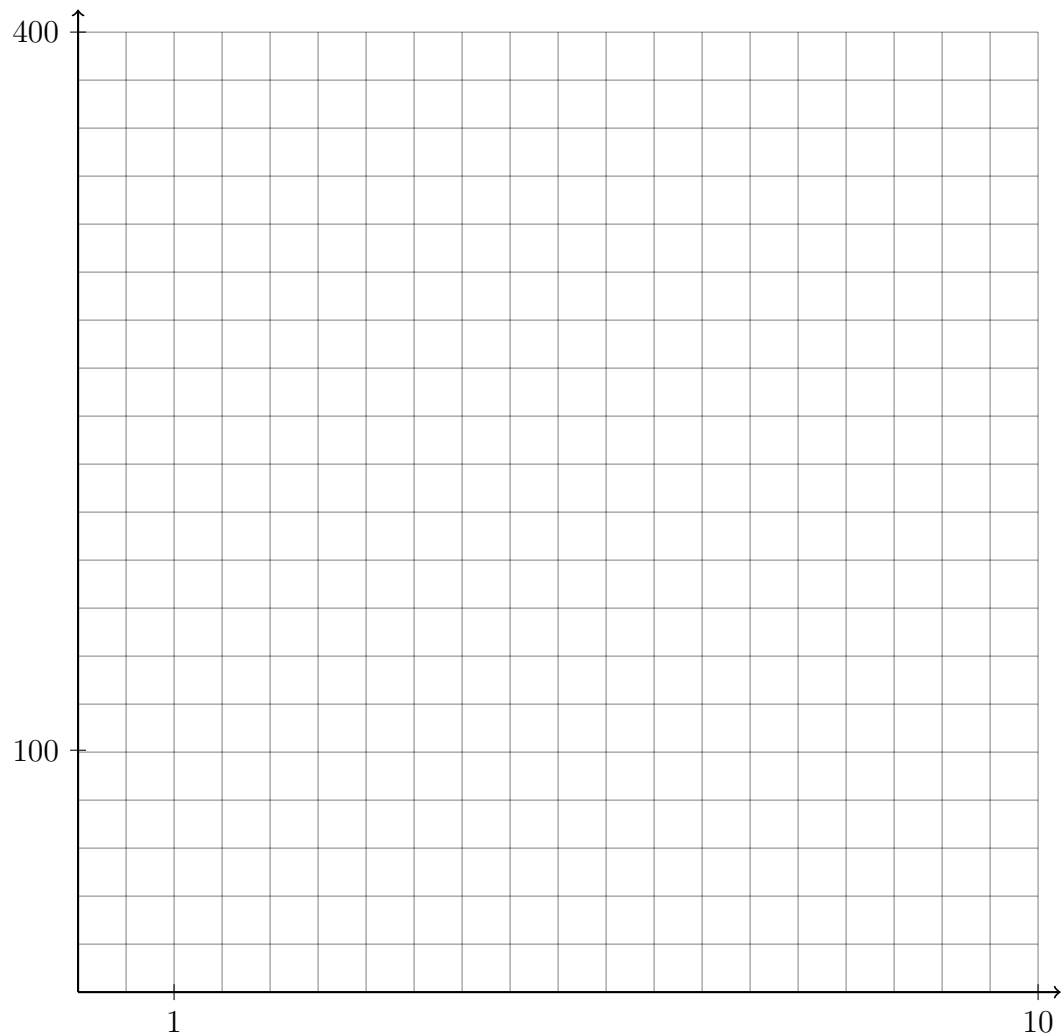   ("Find" means you must show the appropriate values substituted into a formula)

   (b) Find S_5, the sum of the first five terms of the sequence.

   (c) $S_k = 7980$. Find k algebraically.

   (d) Create a table in your calculator to check your answer. (show it to me)

Early finishers

2. Graph $y = 400(.85)^{2x} - 6$ on the set of axes below.

3. The expression $(x + a)(x + b)$ can not be written as

    (a) $a(x + b) + x(x + b)$

    (b) $x^2 + (a + b)x + ab$

    (c) $x^2 + abx + ab$

    (d) $x(x + a) + b(x + a)$