Open book, open note. Use the formula sheet.
Answer in space provided. Show work.
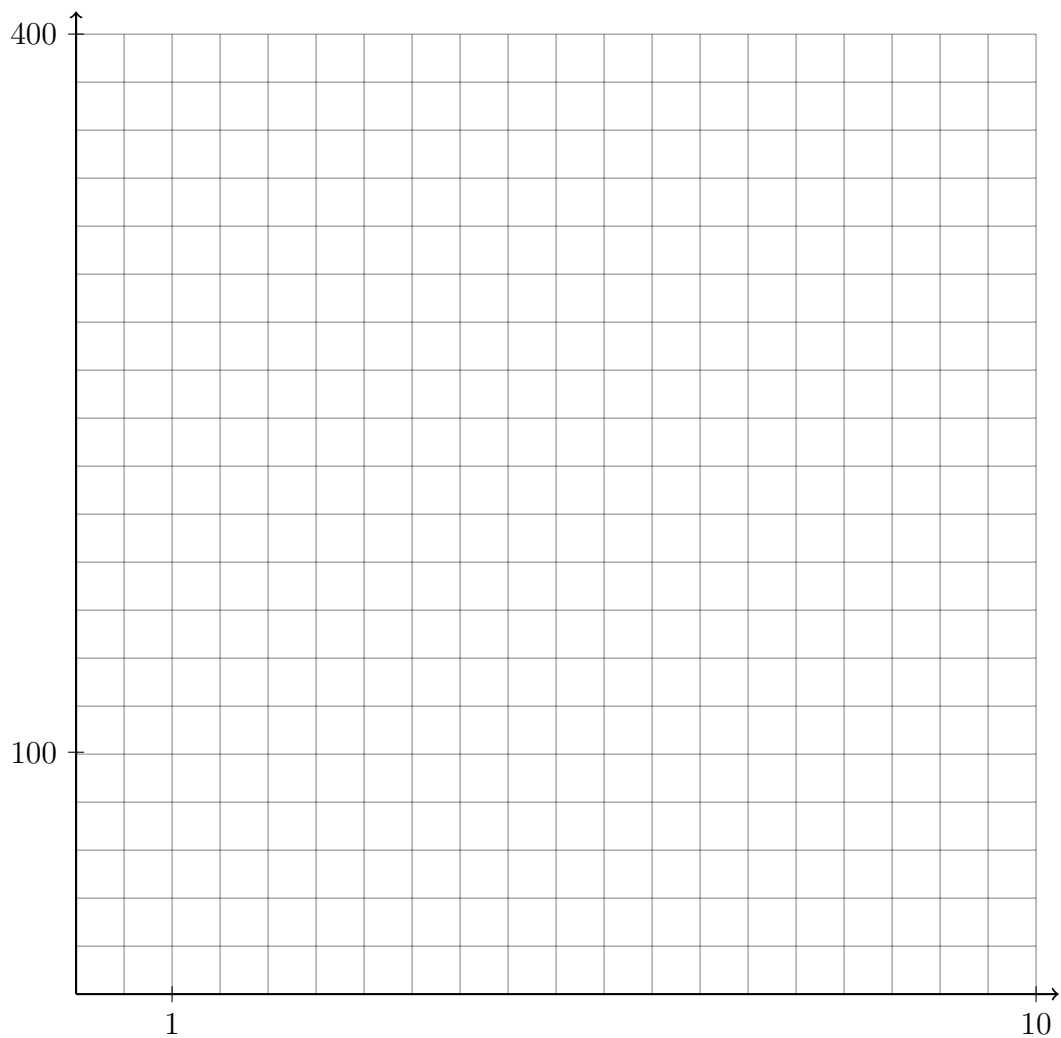
Geometric sequence and series

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.

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400

100

        1                                              10
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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) $x(x + a) + b(x + a)$