

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)

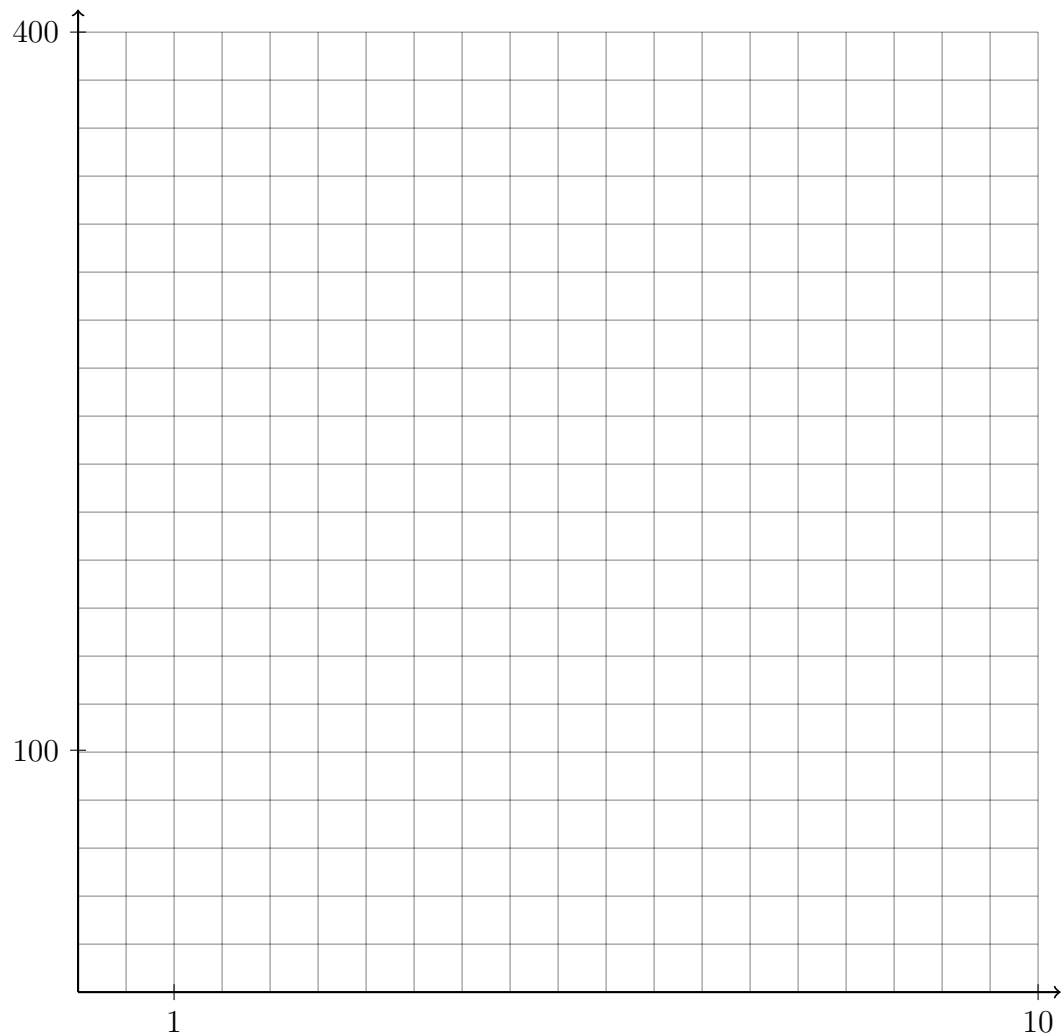
(b) Find S_5 , the sum of the first five terms of the sequence.

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