Algebra Test 6
Problem 7

That's a typo. A rather significant typo.

The problem should read like this:

4, 28, 196, 1372, 9604…6th term.

To solve it,

This is using the formula for successive terms in a geometric sequence. This formula is explaining on page 793.

It is this:

$$t_n = t_1 \cdot r^{(n-1)}$$

Where tn = the nth term in the given sequence
t1 = the first term in the given sequence
R = ratio between the successive terms in the sequence
And n = the "n" number when it describes the "nth term" of the sequence.

So for this problem, you have to indentify each of the shown parts, plug in, and solve.

Tn is what we are trying to find, so we start with the other parts.

t1 for this problem equals 4. We know that because in the shown sequence, 4 is the first number.

Next, we will note (when the problem is written correctly and I apologize yours was not originally), that the ratio between successive terms is 7, because:
4(7) = 28
28(7) = 196
196(7) = 1372
1372(7) = 9604

So the "r" in this equation becomes 7.

Then, since it tells us that it wants us to find the "6th term", we plug in 6 for n to get

Tn = 4 (7^(6-1)) = 4(7^5) = 4(16807)= 67,228