



Problem of the Week

Problem E

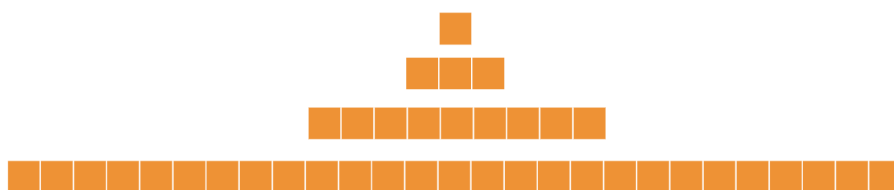
Power Trail

The first four terms of a geometric sequence are

$$a, b, 4a, a - 6 + b$$

for some numbers a and b with $a \neq 0$.

Determine all possibilities for the values of a and b .



NOTE: A geometric sequence is a sequence in which each term after the first is obtained from the previous term by multiplying it by a non-zero constant, called the common ratio. For example, 2, 6, 18 is a geometric sequence with three terms and a common ratio of 3. You can explore geometric sequences further in our [CEMC Courseware](#).