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a.  $u_0 = 4$     $u_1 = 8$     $u_2 = 12$   
 $\frac{u_1}{u_0} = 2$     $\frac{u_2}{u_1} = \frac{12}{8} = \frac{3}{2}$     $\frac{u_1}{u_0} \neq \frac{u_2}{u_1}$     $(u_n)$  non géom.

b.  $u_n = 3 \times (-2)^n = u_0 \times q^n$ ,  $u_0 = 3$     $q = -2$     $(u_n)$  géom.

c.  $u_n = \frac{2^n}{3} = \frac{1}{3} \times 2^n = u_0 \times q^n$ ,  $u_0 = \frac{1}{3}$ ,  $q = 2$     $(u_n)$  géom.

d.  $u_n = (\sqrt{2})^n = 1 \times (\sqrt{2})^n = u_0 \times q^n$ ,  $u_0 = 1$ ,  $q = \sqrt{2}$     $(u_n)$  géom.

e.  $u_n = 3^{n+2} = 3^2 \times 3^n = 9 \times 3^n = u_0 \times q^n$ ,  $u_0 = 9$ ,  $q = 3$     $(u_n)$  géom.

f.  $u_n = 2 \times n^3$

$u_0 = 2$     $u_1 = 2$     $u_2 = 2 \times 2^3 = 16$   
 $\frac{u_1}{u_0} = 1$     $\frac{u_2}{u_1} = 8$     $(u_n)$  non géom.