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| **Geometric Sequences** |
| **(a)** | **(b)** | **(c)** | **(d)** |
| Find the next two terms in the sequence $7, 14, 28, 56,…$ | Find the next two terms in the sequence $40, 20, 10, 5,….$ | Find the first four terms of the sequence with first term $2$ and common ratio $3$ | Find the first term and common ratio for the sequence:$$3, 15, 75, 375,…$$ |
| **(e)** | **(f)** | **(g)** | **(h)** |
| Find the first term and common ratio for the sequence:$$160, 80, 40, 20,…$$ | Find the next two terms in the sequence $2, -4, 8, -16,….$ | Find the first four terms of the sequence with first term $120$ and common ratio $0.5$ | Find the first term and common ratio for the sequence:$$4, -8, 16, -32,…$$ |
| **(i)** | **(j)** | **(k)** | **(l)** |
| Find the first four terms of the sequence with first term $5$ and common ratio $-2$ | Find the first four terms of the sequence with nth term $6×3^{n-1}$ | Find the nth term of the sequence with first term $10$ and common ratio $4$ | Find the nth term of the sequence with first term $250$ and common ratio $0.2$ |
| **(m)** | **(n)** | **(p)** |
| Find the first four terms of the sequence with nth term $400×\left(\frac{1}{2}\right)^{n-1}$ | Find the nth term of the sequence with first term $8$ and common ratio $-5$ | A tree starts with four branches. Every month each branch splits into two. How many branches will the tree have after 5 months? Find a formula for the number of branches $b$ after $n$ months. |