2E2 Tutorial Sheet 6 First Term[1]

14 November 2003

1. (2) Find the Z-transform of the sequence $(1, 0, 2, -3, 0, 0, \ldots)$.
2. (2) Find the Z-transform of the geometric sequence $(3, 6, 12, 24, \ldots)$.
3. (2) Find the Z-transform of the delayed sequence $(0, 0, 0, 3, 6, 12, 24, \ldots)$
4. (2) Find the Z-transform of the sequence $(6, 12, 24, \ldots)$ both by considering it the advance of the sequence $(3, 6, 12, 24, \ldots)$ and by applying the formula for geometrical sequences directly. Do you get the same answer?

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