

C11 - 1.8 - Geometric Sequence Series Word Problems

A ball rolls off a building 100 m tall. Each time the ball bounces on the floor, it rises to 80% of the previous height.

How high does the ball bounce after the first bounce? The third bounce?

How high does the ball bounce after the n th bounce? (Find the general formula)

How high does the ball bounce after the 9th bounce. ($t_{10} = ?$)

What is the total vertical distance the ball has travelled when it hits the ground for the 5th bounce? ($s_5 = ? \times 2 - 100$)

If it bounces forever, what is the total distance?

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If you make \$1 in your first year at work and get paid double each year after. How much will you make in your 10th, 12th, 20th year at work?

How much will you make total after 10 years, 12 years and 20 years?