

Bellwork Thursday 12/07

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The world's population has grown at an average rate of 1.9 percent per year since 1945. There were approximately 4 billion people in the world in 1975.

Which of the following functions represents the world's population P , in billions of people, t years since 1975? (1 billion = 1,000,000,000)

- A) $P(t) = 4(1.019)^t$
B) $P(t) = 4(1.9)^t$
C) $P(t) = 1.19t + 4$
D) $P(t) = 1.019t + 4$

4 billion \rightarrow 1975
 $r = 1.9\%$
 $r = 0.019$
 t
 $y = a b^x$
 $y = 4(1.019)^t$