Algebra II, Quiz 10.5-10.6, Review

Give complex numbered answers when appropriate and in **standard** form:

1. Solve by completing the square: $2x^2+4x=-3$

2. Perform the complex division $\frac{2+i}{1-i}$

3. Solve $\sqrt{x}=4x$

4. Find the annual growth rate for a population that triples in size every seven years.

5. Find the formula for the exponential function given that its graph passes through points (10, 30) and (15, 50). State the initial value, the growth factor and the growth rate as a percentage.

6. For each exponential growth, state the continuous growth rate, the annual growth factor and the annual growth rate as a percentage:

a) $V=1100e^{0.0357t}$

b) $Q=35e^{-.045x}$