2. [6 points] Scientists are studying three different populations of bacteria.

    a. [4 points] Population A is doubling every 5 hours.

       Show any needed work. Give answers in exact form or rounded to 3 decimal places.

         i. What is the growth factor for population A?

<div align="right">

Answer: _____

</div>

         ii. How long does it take population A to triple?

<div align="right">

Answer: _____ hours

</div>

    b. [2 points]

       Population B is growing exponentially at a rate of 16% per hour.
       Population C is growing exponentially at a *continuous* rate of 14% per hour.

       Which of these two populations is growing more quickly? Circle your answer, then briefly justify.

               POPULATION B   POPULATION C

       Justification: