1. On one occasion the gremlin tried to take over the kingdom with a bacteria dish. The bacteria multiplied at such a rate that . At  hour, the number of bacteria was 10. If the gremlin had not been stopped, how long would it have been before  equaled 1000?

For problems 2 thru 8, find .

2. 

3. 

4. 

5. 

6. 

7. 

8. 