

## Determining Truth Values

Determine the truth value of each proposition. After each proposition, write T if the proposition is truth, or F if the proposition is false.

1. Today is Friday and the next president of the United States will be a women.
2. There are 10 people in this room.
3. It is not the case that  $4 = 3$ .
4. At least one student in the CHAMP program is in 12<sup>th</sup> grade or Houston is the 4<sup>th</sup> largest city in the United States.
5. All students in the CHAMP program are the same age.
6. There are 50 stars on the United States flag and there are no stars on the state flag of Texas.
7. There are 50 stars on the United States flag or there are no stars on the state flag of Texas.
8. There are 24 hours in a day and 12 months in a year.
9. There are 24 hours in a day or 12 months in a year.
10. Africa is a country and  $6 - 2 = 4$ .
11. Africa is a country or  $6 - 2 = 4$ .
12. The iPhone 5 was released before the iPhone 4 or  $7 * 3 = 22$ .
13. The iPhone 5 was released before the iPhone 4 and  $7 * 3 = 22$ .
14. Today is Thursday or today is not Thursday.
15. Today is Thursday and today is not Thursday.