

1 Identification of propositions and eventual truth values.

- a) The sentence “Boston is the capital of Massachusetts.” is a proposition, the truth value is true.
- b) The sentence “Miami is the capital of Florida.” is a proposition, the truth value is false.
- c) $2 + 3 = 5$ is a proposition, the truth value is true.
- d) $5 + 7 = 10$ is a proposition, the truth value is false.
- e) $x + 2 = 11$ is not a proposition.
- f) The sentence “Answer this question.” is not a proposition.

2 Identification of propositions and eventual truth values.

- a) The sentence “Do not pass go.” is not a proposition.
- b) The sentence “What time is it?” is not a proposition.
- c) The sentence “There are no black flies in Maine.” is a proposition, the truth value is false since there are black flies in Maine.
- d) $4 + x = 5$ is not a proposition.
- e) The sentence “The moon is made of green cheese.” is a proposition, the truth value is false.
- f) $2^n > 100$ is not a proposition.

3 Some propositions and the corresponding negations.

- a) Mei has an MP3 player.
Mei does not have an MP3 player.
- b) There is no pollution in New Jersey.
There is pollution in New Jersey.
- c) $2 + 1 = 3$
 $2 + 1 \neq 3$
- d) The summer in Maine is hot and sunny.
The summer in Maine is not hot and sunny.