

1. Decide whether each following sentences is a proposition.

- (a) Boston is the capital of Massachusetts.
- (b) Miami is the capital of Florida.
- (c) $2 + 3 = 5$.
- (d) $5 + 7 = 10$
- (e) $x + 2 = 11$
- (f) Answer this question.

2. Let p and q be the propositions

p : *It is below freezing.*

q : *It is snowing.*

Write the following propositions using p and q and logical connectives, including negation.

- (a) It is below freezing but not snowing.

- (b) If it is below freezing then it is also snowing.