Assignment 1 Exercise

1.1.1 e) It's raining today. Yes, proposition
It is not raining today. (Negation)

f) Do you like my new shoes? Not a proposition

g) The sky is purple. Yes, proposition
The sky is not purple. (Negation)

h) $2 + 3 = 6$. Yes, proposition
$2 + 3 \neq 6$ (Negation)

i) Every prime number is even. Yes proposition
Every prime number is not even. (Negation)

j) There's a number that is larger than 17. Yes proposition
There is not a number that is larger than 17. (Negation)

1.1.2 b) The patient took the medication, but still had migraines
$t \wedge m$

c) The patient had nausea or migraines.
$n \vee m$

d) The patient did not have migraines
$\neg m$

1.1.3   p : F,   q : T,   r : F,   s : T

b)   p ∨ r : F

c)   q ∧ s : T

d)   q ∨ s : T

1.1.4   b) π is an integer   or   Sun revolves around the earth

F ∨ F : F

F ⊕ F : F

d) There are eight days in a week or there are seven days in a week

F ∨ T : T

F ⊕ T : T