1 Converse

Problem 1. Write each of the following statements as an “If...Then...” statement, then write the converse. Does the converse have the same truth value as the original statement?

(a) The ground is always wet when it is raining.

(b) I never go to the movies with Sally.

(c) All cats are mammals.

Problem 2. 1. Write down a true geometric statement that has a true converse.

2. Write down a true geometric statement that has a false converse.

(Try to come up with examples that we did not use in class today.)
2 Parallel Lines

Problem 3. 1. Find the angle marked as $x$.

2. Find the angle marked as $x$. 

[Diagram with labeled angles and points A, B, C, D, E, F, and G.]
3. Find the angle marked as $x$. 

![Diagram with angles and points labeled A, B, C, D, and E.](image)
3 Definitions

Study the following definitions from Section 3.3 of your textbook before the next class:

1. Polygon
2. Closed polygonal path
3. Vertices
4. Sides
5. $n$-gon
6. Polyonal region
7. Regular
8. Convex
9. Inductive and deductive reasoning

You should also preview the following angle properties:

1. $\angle$ sum of an $n$-gon.
2. Ext. $\angle$s of a polygon.