Name :

Math 170 − 1 −

Write down an example of a set.

Is the following statement true for sets A, B and C?

$(A \cap B) \cup (B \cap C) \cup (A \cap C) = \{x \mid x \text{ is an element of two of } A, B \text{ and } C, \text{but not the third}\}$

For three positive integers a,b,c, when is there a triangle with sides of length a, b and c. No proof necessary, make a visual argument.

What is the sum of the angles inside a regular n-gon. *hint:* try to elongate one of the sides and look at the remaining angle.

Show that $\sqrt{3}$ is not rational.

State and prove Pythagoras' theorem.