COMPOUND SENTENCES

An ***independent clause*** is a phrase that could stand on its own as a complete sentence. When you join two or more independent clauses together into a single sentence, you get a ***compound sentence***.

There are only two legitimate ways to combine independent clauses into a compound sentence:

1. With a "coordinating conjunction" — *and, or, but, so, for* (meaning "because"), *yet* (meaning "but"), *nor* (joining two negative clauses). (If you like acronyms, remember FANBOYS.) Usually, but not always, there will be a comma preceding the conjunction.

> *The real number x is positive, so it has a square root.* ← RIGHT
> *The square root of 2 is a real number and it is positive.* ← RIGHT

2. With a semicolon (;).

> *Let x be a positive real number; then x has a square root.* ← RIGHT

RUN-ON SENTENCES

Any other way of joining two independent clauses together yields a run-on sentence. Here are some common types of run-on sentences:

A. The straight run-on:

The simplest kind of run-on sentence, but probably the least common, is just two complete sentences mooshed together with no words or punctuation intervening.

> *Let x be a positive real number it has a square root.* ← WRONG

Note that "Let *x* be a positive real number" and "It has a square root" are independent clauses, because each can stand on its own as a complete sentence. Most readers recognize immediately that something is missing in this example.

B. The comma splice:

A more common mistake is using a comma alone between two independent clauses.

> *Let x be a positive real number, it has a square root.* ← WRONG

Since the two phrases being joined by a comma are independent clauses, they can't be joined by a comma alone.

C. The "fake conjunction":

This is a more subtle error, and therefore much more common. Certain words—*also, besides, consequently, finally, furthermore, however, indeed, moreover, nevertheless, otherwise, then, therefore,* and *thus*—look and act in many ways like conjunctions, but in fact they're just

adverbs. (Technically, they're called ***conjunctive adverbs***.) If one of these is used to join two independent clauses, it *must* be preceded by a semicolon.

Examples:

> *The set A is empty however B is not.* ← WRONG
> *The set A is empty, however B is not.* ← WRONG
> *The set A is empty; however, B is not.* ← RIGHT
> *The set A is empty. However, B is not.* ← RIGHT

> *Let x be a positive real number then it has a square root.* ← WRONG
> *Let x be a positive real number, then it has a square root.* ← WRONG
> *Let x be a positive real number; then it has a square root.* ← RIGHT
> *Let x be a positive real number. Then it has a square root.* ← RIGHT

This mistake with "then" is especially common in mathematical writing. One reason is probably because people see an analogy with the following:

> *If x is a positive real number, then it has a square root.* ← RIGHT

This is not a run-on sentence. The difference is that the phrase "If x is a positive real number" can't stand on its own as a sentence, so it's not an independent clause.