CS232 Exam 2: Special Pythagorean Triplet

Determine those number that make a special Pythagorean triplet

Problem description:

- A Pythagorean triplet is a set of three natural numbers , a < b < c, for which, $a^2 + b^2 = c^2$
- For example, $3^2 + 4^2 = 9 + 16 = 25 = 5^2$
- There exists exactly one Pythagorean triplet for which a + b + c = 1000.
- Find the product of $a \cdot b \cdot c$

User requirements:

- Create a program displays the three Pythagorean triplets and also the resulting product. (see Figure 1).
- Note that www, xxx, yyy and zzz are place holders for the numbers that you'll eventually have to display. In other words, do not display the place holders you see in the diagram below, rather, display the actual numbers based on your criteria listed above in the problem description.

```
a = xxx
b = yyy
c = zzz

The product of xxx * yyy * zzz = www
Press any key to continue . . .
```

Figure 1: Sample run of the program

Software requirements:

- Use proper variable and constant declaration.