Stamps with a Mathematical Theme.

The stamp summarises the nine-year efforts of the English mathematician Andrew Wiles, who in 1995 succeeded in proving the assertion of the French mathematician and lawyer Pierre de Fermat that the equation $x^n + y^n = z^n$ has no solutions among the natural numbers for n ≥ 3.
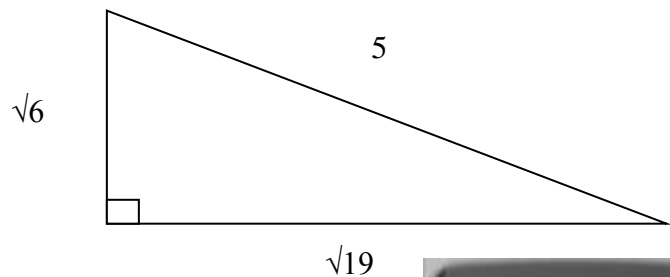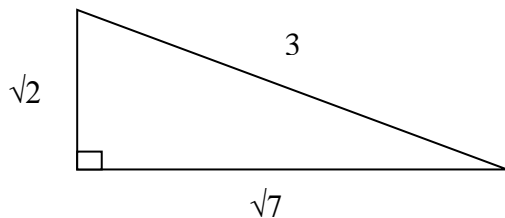
Can you think of some examples with numbers for x, y and z for $x^1 + y^1 = z^1$?

What about values for x, y and z in $x^2 + y^2 = z^2$?

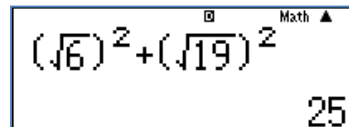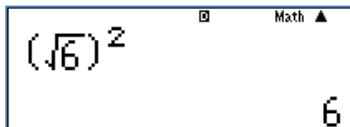Below are other stamps from around the world which have celebrated PYTHAGORAS.

All numbers can be expressed using 'The Theorem of Pythagoreas', here are some examples:

Here $(\sqrt{2})^2 + (\sqrt{7})^2 = 3^2 \ (= 9)$, as $(\sqrt{2})^2 = 2$ and $(\sqrt{7})^2 = 7$

and $(\sqrt{6})^2 + (\sqrt{19})^2 = 5^2, (= 25)$, as $(\sqrt{6})^2 = 6$ and $(\sqrt{19})^2 = 19$.

Using the calculator, check that $(\sqrt{6})^2 = 6$ and $(\sqrt{6})^2 + (\sqrt{19})^2 = 25 \ (= 5^2)$.

Can you use 'The Theorem of Pythagoras' to find other values for a and b such that: $a^2 + b^2 = 9$ or $a^2 + b^2 = 14$? Can you illustrate these as the sides of a right-angled triangle?
What about all the whole numbers between 1 and 20, where $a^2 + b^2 = 1 \ (=2, =3, \ldots, = 20)$?

Source: Images of Mathematicians on Postage Stamps http://jeff560.tripod.com/stamps.html.