Rapid Fire (SAT series).

1) If $x^2 = 2^x$, x can be any multiple of 2

True / False?

2) $\frac{1}{x} > 1 - x$ for all x such that $x^3 > 1$

True / False?

3) Half of all prime numbers are even.

True / false

4) If n is a prime number, then $n^2 - 1$ is also a prime number.

True / false?

5) The lines defined by $x + y = 3$ and $2x + 2y = 10$ never intersect.

True / false?

6) If $x^{m+n} = y^m \cdot y^n$, then $x = 2y$ for all positive x & y.

True / False?

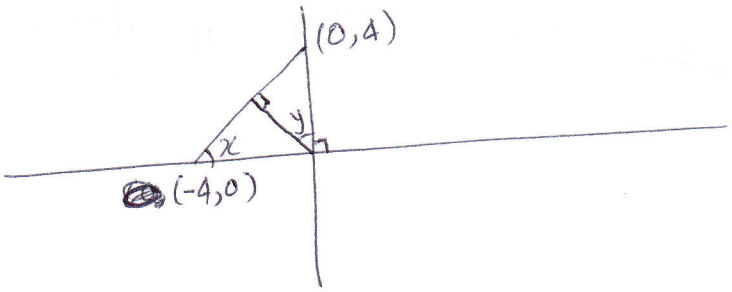
7) If population of Greece grows by 2% in a year and decreases by 2% the next year, the ending population after second year is same as starting population before year 1. (True / false?)

8) If $f(n) = \frac{1}{1+n^2}$, $f(n) \leq 1$ & $f(n) \geq 0$, for any value of n.

(True/false?).

9) C is a circle with diameter 'n'. S is a square with a diagonal 'n'.
Is the area of circle C > area of square S.?

10) What is the value of angle x



11) What is the value of angle y