1. If sum of two prime numbers is 109, find the prime numbers
2. Given what condition, will 1+x2 +x3 +x4+ x5……. (To infinity) equals to ?
3. Give at least one “natural solution” for the equation, x­­4+y4=256
4. Find the limit:
5. There is a two digit even number. The digit in its unit place is a cube and the digit in the tenth place as an odd square number. What is the number? ☺

Answer: 1) 2, 107

2) |x|<1

3) No natural solution

4) ‘e’ [The Euler constant or exponential (2.71... )]

5) 98

1. Give all the cube roots of unity.
2. Find the determinant of the matrix:
3. Find the gradient of x2y3=72 at point where x=3.
4. Solve the inequality: |x+1|<|x-2|
5. Differentiate arcsin(x) with respect to x

Answer:

1)

1,

2) 0

3)()

4) X<(1/2)

5)