Unit testing **Checklist** of the application that defines the type of the triangle (equilateral, isosceles, ordinary, rectangular) and can calculate the area of the triangle.

1. **Testing checkTriangle() method:**
   1. Positive test: a>0, b>0, b>0, c>0, a+b>c, b+c>a, a+b>c – method must return true and message=””
   2. Negative tests:
      1. a<=0 – false and message=”a<=0”
      2. b<=0 – false and message=”b<=0”
      3. c<=0 – false and message=”c<=0”
      4. a+b<=c – false and message=”a+b<=c”
      5. b+c<=a – false and message=”b+c<=a”
      6. a+c<=b – false and message=”a+c<=b”
      7. a is Not a Number – false and message=”[a] is Not a Number”
      8. b is Not a Number – false and message=”[b] is Not a Number”
      9. c is Not a Number – false and message=”[c] is Not a Number”
      10. a is Infinite – false and message=”[a] is Infinite”
      11. b is Infinite – false and message=”[b] is Infinite”
      12. c is Infinite – false and message=”[c] is Infinite”
2. **Testing detectTriangle() method:**
   1. Positive tests:
      1. Rectangular triangle:
         1. a\*a + b\*b = c\*c
         2. b\*b + c\*c = a\*a
         3. a\*a + c\*c = b\*b
      2. Isosceles – a=b or b=c or a=c
      3. Equilateral and isosceles – a=b and b=c and a=c
      4. Rectangular and isosceles:
         1. a\*a + b\*b = c\*c and a=b
         2. b\*b + c\*c = a\*a and b=c
         3. a\*a + c\*c = b\*b and a=c
      5. Ordinary triangle
   2. Negative tests:
      1. Exception generated:
         1. (a, b or c)<=0
         2. a+b<=c, b+c<=a or a+c<=b
         3. a, b or c is Not A Number or Infinity
3. **Testing getSquare() method:**
   1. Positive test: triangle exists (a>0, b>0, b>0, c>0, a+b>c, b+c>a, a+b>c) – correct triangle square
   2. Negative tests:
      1. Exception generated:
         1. (a, b or c)<=0
         2. a+b<=c, b+c<=a or a+c<=b
         3. a, b or c is Not A Number or Infinity
         4. a, b, c is Double.MAX\_VALUE (?)