For a sprint of 6 requirements, only 4 are produced by 3 developers in 3 months as 6 Kloc written by each. However, the test team detects 150 bugs out of 300 by checking 5 Kloc of code, which takes an extra month to solve.

$$Programmer\ Productivity = \frac{LOC\ produced}{Person\ months\ of\ effort} = \frac{6\ Kloc}{3} = \frac{6000}{3}$$

$$Module\ Defect\ Density = \frac{Number\ of\ defects}{Module\ size} = \frac{300}{18}$$

Note * each developer write 6 Kloc so the total for 3 developers 3*6 = 18

$$Defected\ Detection\ Efficiency = \frac{Number\ of\ defects\ detected}{Total\ number\ of\ defects} = \frac{150}{300}$$

$$Requirement\ Stability = \frac{Number\ of\ initial\ requirements}{Total\ number\ of\ requirements} = \frac{4}{6} * 100 = 66.6\ \%$$

Note * multiplied the result * 100 to get the percentage.

$$Test\ Effectiveness\ Ratio = \frac{Number\ of\ items\ covered\ (check\ code)}{Total\ number\ of\ items\ (total\ code)} = \frac{5\ Kloc}{18\ Kloc}$$

$$System\ spoilage = \frac{Effort\ spent\ for\ fizing\ faults}{Total\ project\ effort} = \frac{1}{4}$$

Note * total = 3 (3 months) + 1 (1 extra month)