

Find the solution of the equation $\log_{10}[x^2 - 7x + 20] = 1$.

- We must try to get x by itself. So, we will write the logarithm as an exponent. We use the property: $\log_b w = z$ is equivalent to $b^z = w$
- So $\log_{10}[x^2 - 7x + 20] = 1$ is equivalent to $[x^2 - 7x + 20] = 10^1 = 10$
- Now we solve the equation $x^2 - 7x + 20 = 10$
- Then $x^2 - 7x + 10 = 0$
 $(x-5)(x-2) = 0$, $x=5$ or $x=2$