Difficilis topology

Nasir Germain’s new spin on mathematics
A quick video on Difficilis topology
Basic knowledge of Difficilis topology

• need to know algebra
• Need to know geometry
• Quadratics will be frequently used
• Need to know alpha squared by beta equation
A solved equation by alpha squared by beta

Best Answer: I'll do it in a and b because I can't use alpha and beta. You need to look at the expansion of $(a+b)^2 = a^2 + 2ab + b^2$. If you rearrange it, $b/a + a/b$ needs a common denominator to add, which will be $a*b$. So, $b/a$ needs to be multiplied (top and bottom) by $b$, and $a/b$ needs to be multiplied by $a$ which gives $b*b/ab + a*a/ab$ or $(b^2+a^2)/ab$. Using the two values given: $a+b = 7/4$, so $(a+b)^2 = (7/4)^2 = 49/16$. $a*b = -15/8$, so $2ab = -2(-15/8)$ or $-30/8b^2 + a^2 = (a+b)^2 - 2ab$. From the expansion above where the $2ab$ is moved to the other side, so the top of the fraction becomes $49/16 - (-30/8)$. From the two parts above, which is $49/16 + 60/16 = 109/16$. The denominator is $a*b$ which is $-15/8$, so we get $109/16$ divided by $-15/8$. Change to multiply and reverse the $-15/8$. $109/16 * -8/15$ the 8 and 16 will cancel 1 and 2, so you get $-109/(2*15) = -109/30$. 