Incorrect. The GCF of the three terms is $5x^2$. So: $5x^4 + 40x^3 - 100x^2 = 5x^2(x^2 + 8x - 20)$

You need to find two numbers whose product is -20 and whose sum is 8, in order to factor the trinomial into the product of two binomials. The correct answer is 2.