Incorrect. A binomial in the form $a^3 - b^3$ can be factored as $(a - b)\left(a^2 + ab + b^2\right)$. $125m^3 = (5m)^3$ and $8n^3 = (2n)^3$, so $a = 5m$ and $b = 2n$. The correct answer is 10.