

Name: _____

Show work needed to justify your answer.

Date: _____

HW: # 21a: Math IBSL - Standard 21 - The Binomial Theorem

5 points

1 Find the indicated term for the expansions below:

a The fifth term of $(3x - 5)^{11}$

b The ninth term of $(x + 6y)^{10}$

3 a Find the term in x^3 in the expansion of $(x - 3)^8$.

b Find the term in x^5 in the expansion of $-2x(x - 3)^8$.

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6 The fourth term in the expansion of $(2x - k)^8$ is $-387\,072x^5$. Find the value of k .

7 In the expansion of $(a - b^2)^6$, what is the coefficient of the term in a^3b^6 ?

11 Find the binomial power, in the form $(a + b)^n$, with expansion $27x^3 - 108x^2y + 144xy^2 - 64y^3$.