

NAME: _____

P.I. A2.A.36: Apply the binomial theorem to expand a binomial and determine a specific term of a binomial expansion

1. Find the third term in the expansion of $(c - 2d)^6$.

[A] $-160c^4d^2$ [B] $60c^4d^2$
[C] $-160c^2d^4$ [D] $60c^2d^4$

2. Find the fourth term in the expansion of $(y - 2z)^7$.

[A] $35y^2z^5$ [B] $-280y^4z^3$
[C] $35y^4z^3$ [D] $-280y^2z^5$

3. Find the sixth term in the expansion of $(x - 2y^2)^{14}$.

[A] $-64,064x^9y^{10}$ [B] $768,768x^9y^{10}$
[C] $-64,064x^6y^{16}$ [D] $768,768x^6y^{16}$

4. Find the fifth term in the expansion of $(3x - y^2)^{11}$.

[A] $112,266x^7y^8$ [B] $721,710x^5y^{12}$
[C] $721,710x^7y^8$ [D] $112,266x^5y^{12}$

5. Find the sixth term in the expansion of $(u - 2y)^8$.

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6. Find the fifth term in the expansion of $(t + 3y)^7$.

9. Expand $(w + x)^6$. Which one of the following is a term in the answer?

[A] $5w^3x^3$ [B] $20w^3x^3$
[C] $10w^3x^3$ [D] $15w^3x^3$

7. Find the fourth term in the expansion of $(k + 2y)^6$.

10. Which is the term that contains x^4 in the expansion of $(x + 2)^8$?

[A] $140x^4$ [B] $70x^4$
[C] $1120x^4$ [D] $17,920x^4$

8. Expand $(m + n)^5$. Which one of the following is a term in the answer?

[A] $20m^2n^3$ [B] $5m^2n^3$
[C] $10m^2n^3$ [D] $15m^2n^3$

[1] B

[2] B

[3] A

[4] C

[5] $-1792u^3y^5$

[6] $2835t^3y^4$

[7] $160k^3y^3$

[8] C

[9] B

[10] C