

THE BINOMIAL THEOREM:

8 Multiple choice questions

1. What is the 4th term of $(x+2y)^{10}$?

- ☐ A formula for finding any power of a binomial without multiplying at length.
- ☐ $960x^7y^3$
- ☐ $12xy^5$
- ☐ $x^3+3x^2y+3xy^2+y^3$

2. What is the expansion of $(x+y)^3$?

- ☐ $x^3+3x^2y+3xy^2+y^3$
- ☐ $960x^7y^3$
- ☐ $12xy^5$
- ☐ A formula for finding any power of a binomial without multiplying at length.

3. What are the coefficients of the row on Pascal's triangle for the expansion of $(a+b)$ raised to the 9th power?

- ☐ A formula for finding any power of a binomial without multiplying at length.
- ☐ $x^3+3x^2y+3xy^2+y^3$
- ☐ $960x^7y^3$
- ☐ 1, 9, 36, 84, 126, 126, 84, 36, 9, 1

4. How do you find the next row in the Pascal's Triangle?

- ☐ Addition. Each number is the number directly above it added together.
- ☐ 1, 9, 36, 84, 126, 126, 84, 36, 9, 1
- ☐ $x^3+3x^2y+3xy^2+y^3$
- ☐ A formula for finding any power of a binomial without multiplying at length.

5. What is the 6th term of $(2x+y)^6$?

- ☐ $12xy^5$
- ☐ $960x^7y^3$
- ☐ A formula for finding any power of a binomial without multiplying at length.
- ☐ $x^3+3x^2y+3xy^2+y^3$

6. What is the Binomial Theorem?

- ☐ $960x^7y^3$
- ☐ $x^3+3x^2y+3xy^2+y^3$
- ☐ $12xy^5$
- ☐ A formula for finding any power of a binomial without multiplying at length.

7. Expand $(a-b)^5$

- ☐ Addition. Each number is the number directly above it added together.
- ☐ $x^3+3x^2y+3xy^2+y^3$
 $a^5-5a^4b+10a^3b^2-10a^2b^3+6ab^4-b^5$
Powers of a decrease
☐ Powers of b increase
Coefficients are 1,5,10,10,5,1 from 5th row of Pascal's triangle
-b makes the odd powers of b negative
- ☐ A formula for finding any power of a binomial without multiplying at length.

8. What is the Binomial Coefficient formula?

- ☐ A formula for finding any power of a binomial without multiplying at length.
- ☐
- ☐ $12xy^5$
- ☐ $960x^7y^3$