What's Going On?

Checking In

Minds on   Unit Formulae

Action!   Unit Skills and Concepts

Consolidation   Get Ready!

Learning Goal - I will be ready for tomorrow's test!

LGL

Expand the binomial below using Pascal's Triangle.

$$(4x - 3y)^4 \quad \leftarrow \text{use row 5}$$

a   b $1 \quad 4 \quad 6 \quad 4 \quad 1$

$$= 1a^4 + 4a^3b + 6a^2b^2 + 4ab^3 + 1b^4$$

$$= 1(4x)^4 + 4(4x)^3(-3y) + 6(4x)^2(-3y)^2 + 4(4x)(-3y)^3 + 1(-3y)^4$$

$$= 256x^4 - 768x^3y + 864x^2y^2 - 432xy^3 + 81y^4$$

Minds on

Unit Formulae

Action!

Unit Skills and Concepts

Arithmetic and Geometric Sequences

You need to be able to:

- Determine general term given *a* and *d (or r)*

- Determine recursive formula given *a* and *d (or r)*

- Find any term in a sequence

- Determine *a* and *d (or r)* given two terms from a sequence

- Determine the number of terms in a sequence by rearranging the general term (ARITHMETIC)

- Represent growth and decay rates as *r* values (GEOMETRIC)

Action!

Unit Skills and Concepts

Mixed Sequences

You need to be able to:

- Use first and second differences to find patterns

- Divide differences to find subtle patterns in sequences

- Use patterns to determine successive terms in a sequence

- Write recursive formulas for patterned sequences

- Break up sequences involving fractions into a numerator component and a denominator component

Action!

Unit Skills and Concepts

Arithmetic and Geometric Series

You need to be able to:

- Identify values of variables to be used in the series formulae a n d/r t_n

- Use the general term formula or patterning and logic to solve for missing information

- Use series formulae to determine sums of series'

Action!

Unit Skills and Concepts

Pascal's Triangle

You need to be able to:

- Produce Pascal's Triangle

- Describe patterns in Pascal's Triangle

- Use Pascal's Triangle to expand binomials

Consolidation

Review Questions