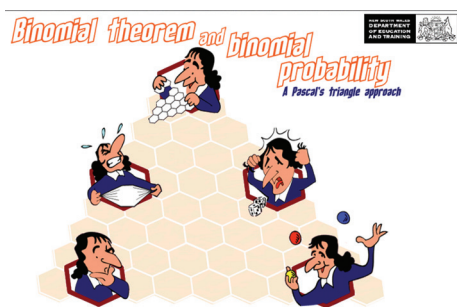


Binomial theorem and binomial probability: a Pascal's triangle approach

CLI Products

visit: www.cli.nsw.edu.au > products



A motivating and explorative learning resource aimed at supplementing classroom instruction with a variety of enrichment activities that will engage high school students.

Binomial theorem and binomial probability is a web-based multimedia resource designed to support students in learning about various applications of Pascal's triangle.

Binomial theorem and binomial probability gives students an opportunity to:

- build Pascal's triangle (Stages 4, 5 and 6)
- expand binomials (Stage 6 Extension 1)
- investigate the properties of Pascal's triangle (Stage 6 Extension 1)
- work on the binomial theorem (Stage 6 Extension 1)
- explore binomial probability distributions (Stage 6 Extension 1).

Each module is self-contained and can be used separately. A comprehensive teacher support section includes prerequisite knowledge and skills, programming advice, syllabus outcomes and *Quality Teaching* elements.

Access *Binomial theorem and binomial probability* through the Teaching and Learning exchange (TaLe) <http://www.tale.edu.au> (NSW DET access only).

"Great visual approach ... Topic made interesting"

– Secondary teacher,
NSW Department of Education and Training

This resource supports learning about binomial theorem and binomial probability as well as numbers and patterns. It includes interactive learning activities presented within a real life context. It is suitable for individual or group work, whole class discussion or demonstrations.

Enquiries

CLI Customer Service

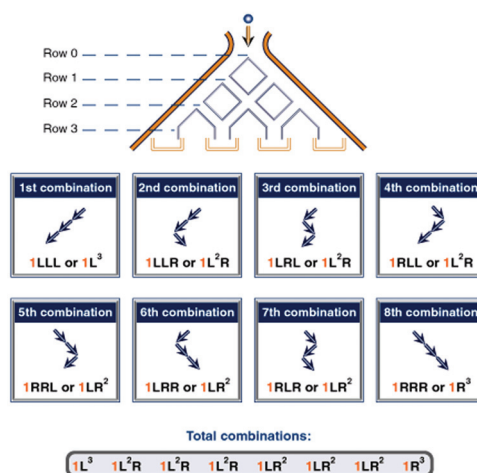
telephone: (02) 9715 8448

fax: (02) 9715 8174

email: cli.customerservice@det.nsw.edu.net.au

Row 3

The combination of probabilities when the ball reaches row 3 is $(L + R)^3 = 1L^3 + 3L^2R + 3LR^2 + 1R^3$.
See below:



Students can use a simulator to explore binomial probabilities.