

DISCRETE MATHS (Q 6 & 7, PAPER 2)

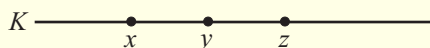
LESSON NO. 4: SIMPLE PROBABILITY

2006

- 6 (a) (i) How many different teams of three people can be chosen from a panel of six boys and five girls?
- (ii) If the team is chosen at random, find the probability that it consists of girls only?

2003

7 (b)



L and K are distinct parallel lines.

a , b , c and d are points on L such that $|ab| = |bc| = |cd| = 1$ cm.

x , y and z are points on K such that $|xy| = |yz| = 1$ cm.

- (i) How many different triangles can be constructed using three of the named points as vertices?
- (ii) How many different quadrilaterals can be constructed using four of the named points as vertices?
- (iii) How many different parallelograms can be constructed using four of the named points as vertices?
- (iv) If one quadrilateral is constructed at random, what is the probability that it is *not* a parallelogram?

2002

- 7 (a) Two unbiased dice, each with faces numbered 1 to 6, are thrown.
- (i) What is the probability of getting a total equal to 8?
- (ii) What is the probability of getting a total less than 8?

2002

7 (c) A palindromic number is one that reads the same backwards as forwards, such as 727 or 38183.

- (i) The year, 2002, is a palindromic year. When is the next palindromic year?
- (ii) How many palindromic years are there from 1000 to 9999 inclusive?
- (iii) A whole number, greater than 9 and less than 10 000, is selected at random. What is the probability that the number is palindromic?

ANSWERS

2006 6 (a) (i) 165

(ii) $\frac{2}{33}$

2003 7 (b) (i) 30

(ii) 18

(iii) 8

(iv) $\frac{5}{9}$

2002 7 (a) (i) $\frac{5}{36}$

(ii) $\frac{7}{12}$

2002 7 (c) (i) 2112

(ii) 90

(iii) $\frac{7}{370}$