

JU CHING CHU SECONDARY SCHOOL (T.M.)

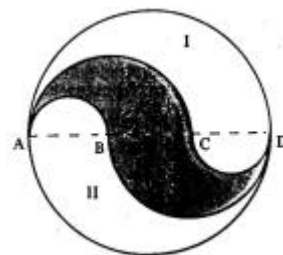
F.5 MATHEMATICS TEST

Ch. 4 PROBABILITY

Answers may be corrected to *3 decimal places* if necessary.

1. Two fair dice are rolled. What is the probability that the sum is greater than or equal to 10. (10%)

2. The figure shows a circular target. ABCD is a diameter of the circle with $AB = BC = CD$ and the shaded region is bounded by semicircular arcs. If a dart is thrown at random on the target, what is the probability that it is on region I or region II? (10%)



3. The probability that a bus company will receive complaints in any one day is 0.99. What is the probability that there will be no complaints in 5 weekdays? (10%)
4. There are 4 red, 5 yellow and 6 blue balls in a bag. If 3 balls are drawn from the bag one after another with replacement, find the probability that
- (a) all are red,
 - (b) all are of the same colour,
 - (c) 2 are yellow and 1 is blue,
 - (d) all are of different colours. (25%)
5. 15% and 20% of women name blue and yellow respectively as their favourite colour. If 3 women are selected at random, what is the probability that their favourite colours are
- (a) all blue?
 - (b) neither blue nor yellow? (10%)
6. Two men A and B throw a die alternately until one of them gets a 1. If A throws first, what is the probability that A will throw a 1 first? (10%)
7. 6 men and their wives are standing in a room. 2 person are chosen from them at random. Find the probability that
- (a) both of them are men,
 - (b) one is a man and the other is a woman,
 - (c) they are a married couple. (25%)

END

數值答案

1. $\frac{1}{6}$ 2. $\frac{2}{3}$ 3. 1×10^{-10}
4. (a) $\frac{64}{3375}$ (b) $\frac{3}{25}$ (c) $\frac{2}{15}$ (d) $\frac{16}{75}$
5. (a) 0.003 (b) 0.275 6. $\frac{6}{11}$

7. (a) $\frac{5}{22}$ (b) $\frac{6}{11}$ (c) $\frac{1}{11}$