

Assignment-3

EE22BTECH11012-A.Chhatrapati

Question 10.13.3.37) A child's game has 8 triangles of which 3 are blue and rest are red, and 10 squares of which 6 are blue and rest are red. One piece is lost at random. Find the probability that it is a

- (i) triangle
- (ii) square
- (iii) square of blue colour
- (iv) triangle of red colour

Solution:

Variable	Value	Description
X	1	Lost piece is Triangle
Y	1	Lost piece is Square
A	1	Lost piece is Blue coloured
B	1	Lost piece is Red coloured

- (i) $p_X(1) = \frac{8}{18}$
- (ii) $p_Y(1) = \frac{10}{18}$
- (iii) $p_{YA}(1) = \frac{6}{18}$
- (iv) $p_{XB}(1) = \frac{5}{18}$