Name: _____ Class: _____ (   )

Probability - Mutually Exclusive Events

Activity 1:

Could the two events A and B in the following situations happen at the same time?   If yes, put a tick (✓) in the box.   If no, put a cross (✗).

1) Event A: toss a coin and get "heads".
    Event B: toss a coin and get "tails".

2) Event A: roll a dice and get a "1".
    Event B: roll a dice and get a "6".

3) Event A: roll a dice and get a "2".
    Event B: roll a dice and get an even number.

4) A bag contains 2 yellow balls and 3 blue balls.   A ball is drawn from it.
    Event A: You get a yellow ball.
    Event B: You get a blue ball.

5) One student is selected as the class monitor.
    Event A: John is selected as the monitor.
    Event B: Peter is selected as the monitor.

6) A card is drawn from a deck of standard playing cards.
    Event A: A spade is drawn.
    Event B: A heart is drawn.

7) A card is drawn from a deck of standard playing cards.
    Event A: A heart is drawn.
    Event B: A king is drawn.

In everyday life, there are events that cannot happen at the same time.   We called these Mutually Exclusive Events (互斥事件).

Can you write down two mutually exclusive events?

_____

_____

Since mutually exclusive events cannot happen together, the probability that both events

will happen together is equal to _____.

How about the probability that either one event will happen?
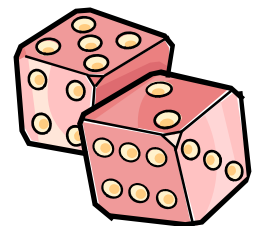

Activity 2:

Complete the following.

1) Roll a dice:

   Event A: Roll a dice and get a "1".

   Event B: Roll a dice, and get a "4".

   The probability that you get a "1", P(A), is _____.

   The probability that you get a "4", P(B), is _____.

   The probability of getting a "1" or a "4", P(A or B), is _____.

1. Spin to win a prize:

   You spin the wheel which has four equal sectors.
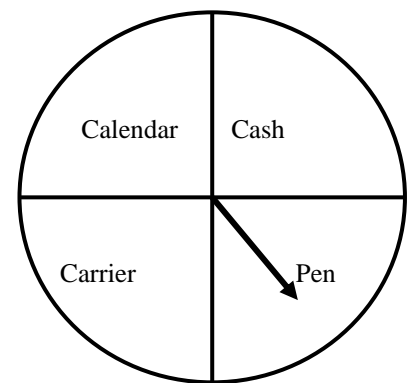
   Event A: You get a calendar.

   Event B: You get a cash coupon.

   P(A) = _____.

   P(B) = _____.

   The probability of getting a calendar or cash coupon, P(A or B), is _____.

2. Draw a coloured ball from the bag

   There are five balls of different colours (orange, yellow, red, blue and white) inside a

   bag.

   Event A: Draw a white ball.

   Event B: Draw an orange ball.

   P(A) = _____.

   P(B) = _____.

   The probability of getting a white or an orange ball, P(A or B), is _____.