Ex. 2u(C) → 6, 7, 8, 9, 10

2u(E) → 1, 2, 4, 5, 7, 8, 9, 11, 13, 15, 19, 22

PROBABILITY

$$P(A) = \frac{\text{Number of favourable outcomes (m)}}{\text{Total number of outcomes (n)}}$$

$\downarrow$

event

(I) Tossing a coin

$$S = \{H, T\}$$

$\downarrow$ Sample space

(II) Tossing 2 coins

$$S = \{HH, HT, TH, TT\}$$

(III) Tossing 3 coins

$$S = \{HHH, HHT, HTH, THH, HTT, THT, TTH, TTT\}$$
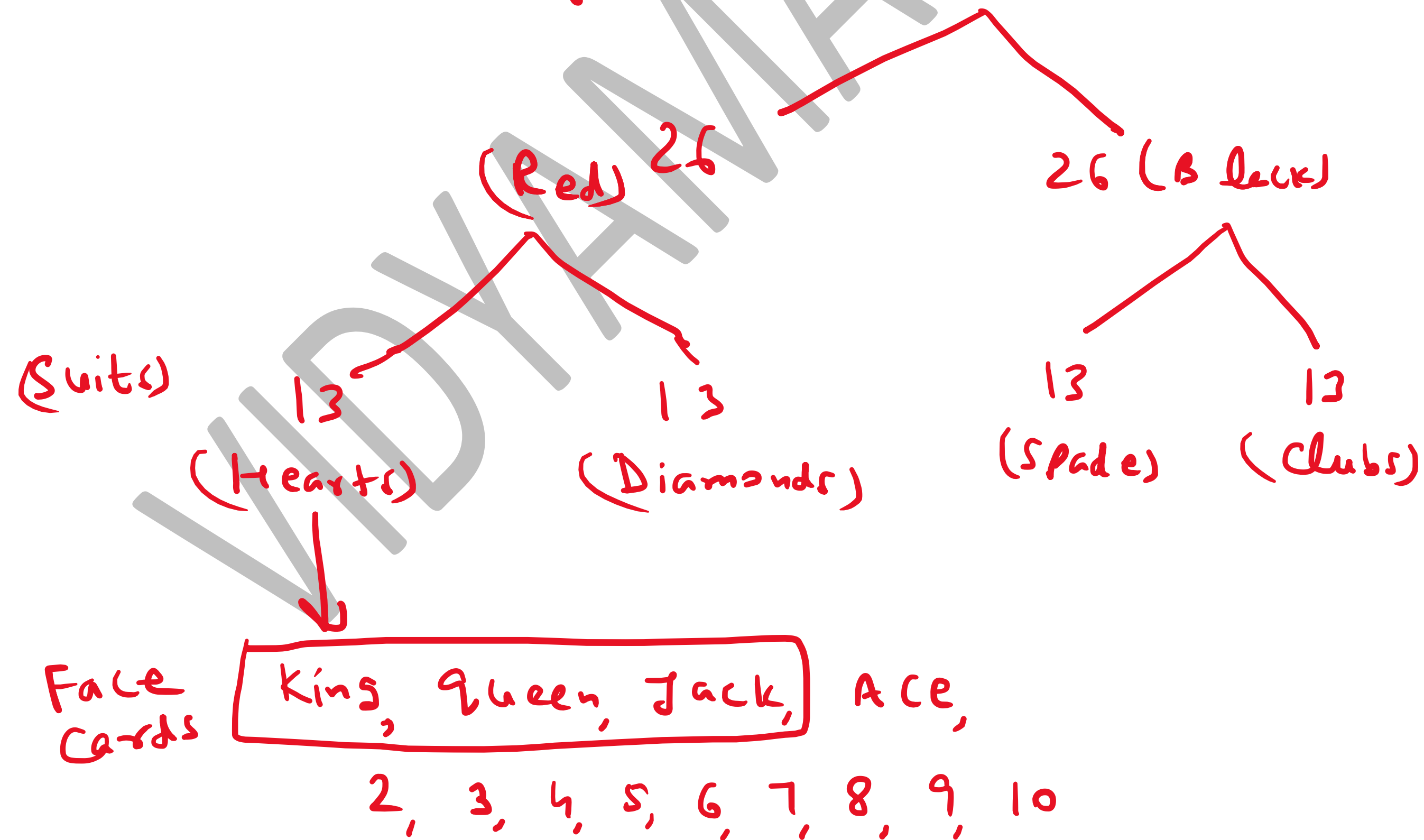
(IV) Throwing a dice

$$S = \{1, 2, 3, 4, 5, 6\}$$

(V) Throwing 2 dice,

$$S = \{ (1, 1)\ (1, 2)\ (1, 3)\ (1, 4)\ (1, 5)\ (1, 6)$$
$$(2, 1)\ -\ -\ -\ -\ -\ -\ -\ (2, 6)$$
$$(3, 1)\ -\ -\ -\ -\ -\ (3, 6)$$
$$(4, 1)\ -\ -\ -\ -\ -\ -\ (4, 6)$$
$$(5, 1)\ -\ -\ -\ -\ -\ -\ (5, 6)$$
$$(6, 1)\ -\ -\ -\ -\ -\ -\ (6, 6) \}$$

(Vi)   Playing Cards

NO. of Cards = 52

(Red) 26   26 (Black)

(Suits)   13   13   13   13
        (Hearts)   (Diamonds)   (Spades)   (Clubs)

Face   King, Queen, Jack,   Ace,
Cards
        2, 3, 4, 5, 6, 7, 8, 9, 10

Complementary events :-

$$P(A') = \frac{\text{Number of unfavourable outcomes}}{\text{Total no. of outcomes}}$$

$$P(A') = \frac{n-m}{n} = \frac{n}{n} - \frac{m}{n}$$

$$= 1 - \frac{m}{n}$$

$$\boxed{P(A') = 1 - P(A)}$$

or $\quad P(A) + P(A') = 1$

If Probability = 1 (certain event)

Probability = 0 (Impossible event)

Otherwise $\quad 0 \leq P(A) \leq 1$

H.W. → Ex. 25 (A) → Full

Ex. 25 (B) → 2, 3, 4, 8, 9, 10, 11, 12, 14

Ex. 25 (C) → 1, 2, 3, 7, 11, 14, 16, 19,

20, 29, 31, 34

Tomorrow is a holiday

Next week Thursday → doubt discussion of
today's Homework

Friday → Test of Statistics &
Probability
(ch. 23, 24, 25)