

PROBABILITY



1) ASSUMING THAT BIRTHS ARE EQUALLY LIKELY ON ANY DAY OF THE WEEK, FIND THE PROBABILITY THAT THE NEXT PERSON YOU MEET WAS BORN ON A WEEKDAY.

LET "A" BE THE EVENT THAT THE DAY IS A WEEKDAY –MONDAY, TUESDAY, WEDNESDAY, THURSDAY, OR FRIDAY. SO $N(A)=5$.



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	✕	✕	✕	✕	✕	

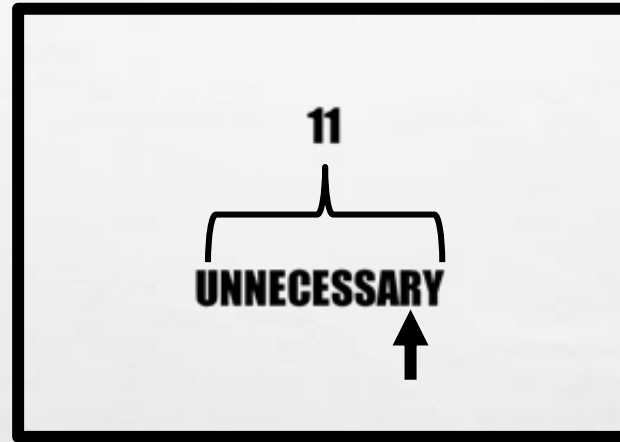
LET "U" BE ALL DAYS IN A WEEK. THERE ARE SEVEN DAYS IN A WEEK, SO $N(U)=7$

HENCE

$$P = \frac{N(A)}{N(U)} = \frac{5}{7}$$

2) ONE LETTER IS SELECTED AT RANDOM FROM THE WORD 'UNNECESSARY'. FIND THE PROBABILITY OF SELECTING:

A) AN R



• **LET A BE NUMBER OF R IN UNNECESSARY.**

$$N(A)=1$$

$$N(U)=11$$

$$P = \frac{N(A)}{N(U)} = \frac{1}{11}$$

B) AN E

•
 $N(A)=2$

$N(U)=11$

$$P = \frac{N(A)}{N(U)} = \frac{2}{11}$$

UNNECESSARY



C) AN 0

UNNECESSARY

N(A)=0

N(U)=11

$$P = \frac{N(A)}{N(U)} = \frac{0}{11} = \mathbf{0}$$

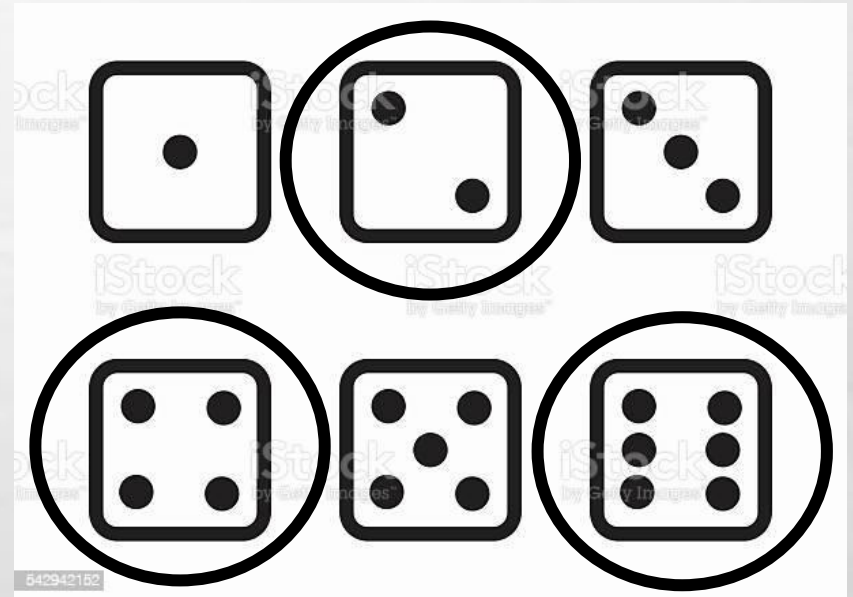
3) A DIE IS THROWN ONCE. FIND THE PROBABILITY OF OBTAINING:

A) AN EVEN NUMBER

$$n(A) = 3$$

$$n(U) = 6$$

$$P = \frac{n(A)}{N(U)} = \frac{3}{6} = \frac{1}{2}$$

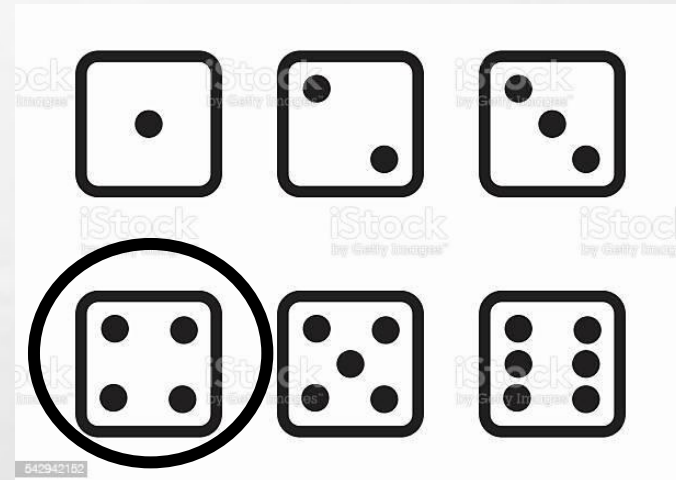


B) A FOUR

$$n(A)=1$$

$$n(U)=6$$

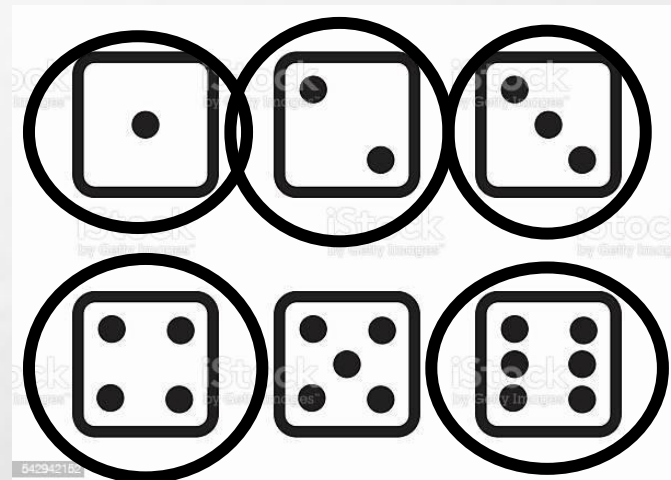
$$P = \frac{n(A)}{N(U)} = \frac{1}{6}$$



C) A FACTOR OF 12 ->1,2,3,4,6

$N(A)=5$

$N(U)=6$

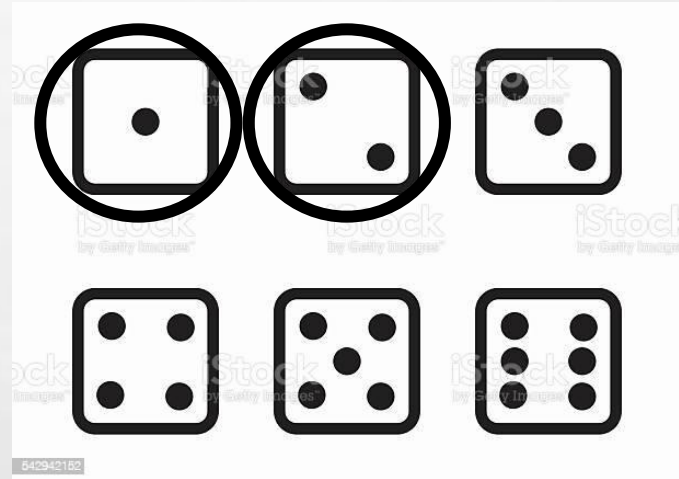


$$P = \frac{n(A)}{N(U)} = \frac{5}{6}$$

D) A NUMBER LESS THAN 3

$$N(A)=2$$

$$N(U)=6$$



$$P = \frac{n(A)}{N(U)} = \frac{2}{6} = \frac{1}{3}$$

THE END