If the sum of 4 times a number A and three times a number B is equal to the sum of number B and seven times the number A. then what is the value of A:B?

A) 2:3

B) 3:2

C) 4:3

D) 3:4

**1ST Number 🡪 A**

**2nd Number 🡪 B**

**4A + 3B = B + 7A**

**2B = 3A**

**A / B = 2 / 3**

**A : B = 2 : 3**

Five paramedics and four technicians are registered for a rescue team. Now many possible combinations one can choose to make a rescue team of a paramedic and a technician?

1. 9
2. 40
3. 20
4. 16

Paramedics 🡪 5

Technicians 🡪 4

Combination for paramedic 🡪 5C1

Combination for technicians 🡪 4C1

Total possible combinations = 5C1 \* 4C1 = 5 \* 4 = 20 ways

Answer: 20

Sameer plant 7225 plants. So that there are as many rows as there are trees in a row. How many tree are in row?

A) 75

B) 95

C) 85

D) 65

Sqrt (7225) = 85

85 \* 85 = 7225

Answer: 85

The boss accepts only one employees leave request for a particular day. If five employer name Ronak, Mahesh, Shripal, Mohanpriya and Shreyansh applied for the leave on the occasion of ganesh chaturthi. What is the probability that ronak’s leave request will be approved

A) 2/3

B) 1

C) 4/5

D) 1/5

Total Employee 🡪 5

Request accepted 🡪 1

Total Possible n(S)🡪 5C1

Required possible n(E) 🡪 1

Probability = 1/5

In a non-leap year what is the probability that the last day of the year starts with a T?

a) 4/7

b) 1

c) 0

d) 2/7

Number of days in a week 🡪 7

Number of days starts with ‘ T ’ 🡪 2 (Tuesday, Thursday)

Total Possible 🡪 7 days

Required Possible 🡪 2 days

Probability = 2/7

The permutations and combinations of abcd taken 3 at a time are respectively

a) 12, 2

b) 24, 4

c) 36, 6

d) 48, 8

Permutation = Possible ways = 4! = 24

Combination = 4C3 = 4

For E.g. 4C2 = 4 \* 3 / 1 \* 2 = 6

4C3 = 4 \* 3 \* 2/ 1\* 2 \* 3 = 4

Answer: 24, 4

Number/Letter (Permutation)

1. With repetition = N \* N \* N…. (For E.g.: 4 digit 🡪 4 \* 4 \* 4 \* 4)
2. Without repetition = n! (For E.g. 4 digit 🡪 4 \* 3 \* 2 \* 1)
3. In a shooting competition, the probability that Rahul will hit the target is 5/7 and the probability that Sheela will hit the target is 3/4. So what is the probability that both of them will hit the target?

A) 2/5

B) 1/5

C) 20/21

D) 15/28

Probability of Rahul = 5/7

Probability of Sheela = ¾

Probability = 5/7 \* ¾ = 15/28

Answer: 15/28

There are 2 bags A and B. Bag A contains 6 red flowers and 3 pink flowers whereas Bag B contains 2 red flowers and 7 pink flowers. One flower is chosen from a bag randomly. What is the probability that the flower chosen is pink?

1. 4/9
2. 1/3
3. 5/4
4. 5/9

Total Possible n(S) = 6 + 3 + 2 + 7 = 18 flower = 18C1

Required Possible = 10 pink Flower = 10C1

Probability = n(E)/n(S) = 10/18 = 5/9

Answer: 5/9

In a section of cinema hall, seats are arranged so that each row has the same number of seats. Abdul is seated in the 5th row from the front and 3rd row from the back. If his seat is 6th from the left and 2nd from the right, how many seats are there in this section?

A) 52

B) 49

C) 45

D) 55

5th row from the front & 3rd row from the back 🡺 (5 + 3) - 1 = 7 rows

6th from the left & 2nd from the right 🡺 (6 + 2) – 1 = 7 columns

Seats 🡺 row \* col = 7 \* 7 = 49

Number of seats = 49

The number of 6-digit even number that can be make for number 2, 4, 3 is?

1. 18
2. 12
3. 120
4. 486

6 digit 🡪 \_3P1\_ \_3P1\_ \_3P1\_ \_3P1\_ \_3P1\_ \_3P1\_ 🡺 3^6 = 729 ways

5 digits 🡪 \_3P1\_ \_3P1\_ \_3P1\_ \_3P1\_ \_3P1\_ 🡺 3^5 = 243 ways

6 digit 🡪 \_3P1\_ \_3P1\_ \_3P1\_ \_3P1\_ \_3P1\_ \_2P1\_ = 243 \* 2 = 486 ways

Total Ways = 486 ways

The number of 6-digit even numbers that can be made from the number 2, 1, 4, 6, 3, 5 are

A) 18

B) 720

C) 120

D) 360

6 digit 🡪 \_1P1\_ \_2P1\_ \_3P1\_ \_4P1\_ \_5P1\_ \_6P1\_ 🡺 6! = 720 ways

5 digits 🡪 \_2P1\_ \_3P1\_ \_4P1\_ \_5P1\_ \_6P1\_ 🡺 6 \* 5 \* 4 \* 3 \* 2 \* 1= 720 ways

6 digit 🡪 \_1P1\_ \_2P1\_ \_3P1\_ \_4P1\_ \_5P1\_ \_3P1\_ 🡺 5! \* 3 = 120 \* 3 = 360 ways

Total Ways = 360 ways

What is the unit digit in 2720?

1. 1
2. 5
3. 12
4. 20

27^30 🡺 (3^3)^20 🡺 3^60

3^1 = 3

3^2 = 9

3^3 = 7

3^4 = 1

3^5 = 3

Cyclicity 🡪 4

60%4=0 🡺 360 = 1

Answer: 2720 = 1

What is the remainder If 825 is divided by 7?

a) 25

b) 8

c) 1

d) 0

825 = (23)25 = 275

Rem {21 / 7} = 2

Rem {22 / 7} = 4

Rem {23 / 7} = 1

Rem {24 / 7} = 2

Rem {25 / 7} = 4

Cyclicity value = 3

Rem (75/3) = 0

275/7 = 1

Answer: Rem (825/7) = 1

If there are 150 babies born every minute. How many babies share the same birth date worldwide?

A. 224000

B. 216000

C. 225000

D. 218000

1 minute 🡪 150 babies

1 day 🡺 24 hours

1 hr 🡺 60 minutes

1 hr 🡪 60 \* 150

For 1 day 🡪 60 \*150 \* 24 = 216000

Answer: 216000 Babies

In a class of 80 students 4/5 of them own cars if 15/16 of them own Alto then how many own alto?

A.64

B.20

C.60

D. Data consistent

Total Students 🡪 80

Own Cars 🡪 4/5 \* 80 = 64 students

Alto 🡪 15/16 \* 64 = 60 Students

Answer: 60 Students

A bread making machine can be make bread of 50kg dough in 3 minutes. How many such machines are required to make breads of 300kg dough in 6 minutes?

A) 6

B) 3

C) 4

D) 5

50 Kg 🡪 3 minutes

1 kg 🡪 3/50 minutes

300 kg 🡪 3/50 \* 300 🡺 18 minutes for 1 machine

18/6 🡺 3 machine

50 Kg 🡪 3 minutes

6 minutes 🡪 100 kg

300 kg 🡪 3 machine

Answer: 3

Rasheb starts for a wedding venue at 6 pm and drives at a speed of 60 km/hr. Ramesh starts for the same venue at 6.30 pm. and drives at a speed of 75 km/hr when both will reach the venue. Provided they reach at the same time?

a) 8.00 pm

b) 9.30 pm

c) 9.00 pm

d) 8.30 pm

Speed of Rasheb 🡪 60 km/hr

Speed of Ramesh 🡪 75 km/hr

Distance = Speed \* time

D = Sr \* t

D = Sv \* t

Sr \* t = Sv \* (t – 0.5)

60 \* t= 75 \* (t – 0.5)

t = 2.5 hours

T = 6.00 PM + 2.5 hours

Time = 8.5 hours = 8.30 PM

In a test called ACSAT, the average marks of 15 test takers is 240. If the marks of 5 test takers are subtracted, the average marks decreases by 40. What is the average marks of 5 test takers?

1. 1600
2. 320
3. 200
4. 40

Average of 15 students = 240

Average = Sum of all quantity/number of quantity

Sum of all marks for 15 test takers 🡪 X

X/15 = 240

X = 3600

Sum of marks for 5 test takers 🡪 Y

3600 - Y / 10 = 200

3600 – Y = 2000

Y = 1600

Sum of marks of 5 test takers = 1600

Average = 1600/5 = 320

Answer: 320