

# Welcome to Our Channel

## Sports & Physical Education



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Education**



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# TOURNAMENT

To conduct tournament there are four methods:

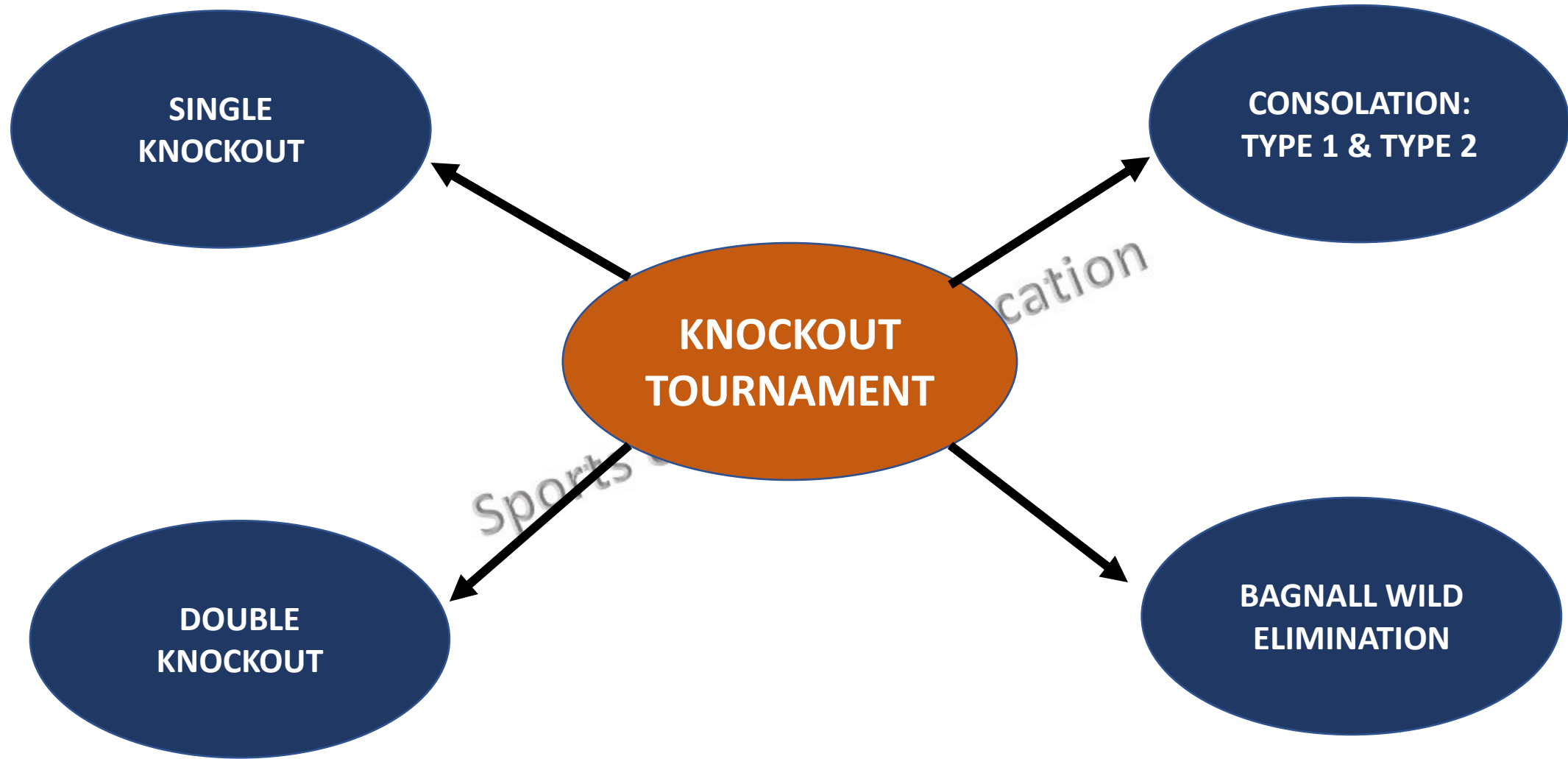
- Knockout / Elimination Tournament
- League Tournament
- Combination Tournament
- Challenges Tournament

# Knockout / Elimination Tournament

In this type of tournament a team which is once defeated automatically get eliminated from the tournament.

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# ➤ Type of Knock out tournament



# SINGLE KNOCKOUT

Also called as **Olympic System Tournament**, **Single Penetration** or **Sudden Death Tournament**.

## FIXTURE IN SINGLE KNOCKOUT TOURNAMENT

**Number of Matches :** “ $n - 1$ ” ;  $n$  : total numbers of teams

e.g. If number of teams are 16 then the number of matches is equal to  $16 - 1 = 15$ .

Number of matches to be played in a knockout tournament is always one less than the number of teams.

## FIXTURE IN TWO HALFS: Number Of Teams In Upper And Lower Half:

### ➤ For Even Numbers Of Team:

Number of team in upper and Number of team in Lower Half =  $\frac{n}{2}$

### ➤ For Odd Numbers Of Team:

Number of team in upper Half =  $\frac{n+1}{2}$

Number of team in Lower Half =  $\frac{n-1}{2}$

# BYE

**Bye** refers to a team automatically advancing to the next round of tournament play without competing .

**Bye = Next Power Of 2 – Number Of Teams**

Power of 2 = Least power of 2 higher than number of teams ;  
 $2^1, 2^2, 2^3, 2^4, 2^5, \dots$

# Formula to calculate BYE:

## ➤ For Even Numbers Of Team:

$$\text{Number of byes} = \frac{nb}{2}$$

## ➤ For Odd Numbers Of Team:

$$\text{Number of byes in upper Half} = \frac{nb-1}{2}$$

$$\text{Number of byes in Lower Half} = \frac{nb+1}{2}$$



# NUMBER OF ROUNDS

Number of round will be the **next power of 2** i.e.  $2^n$

where  $n$  will be the number of rounds

➤ **Example:** Let number of teams = 12

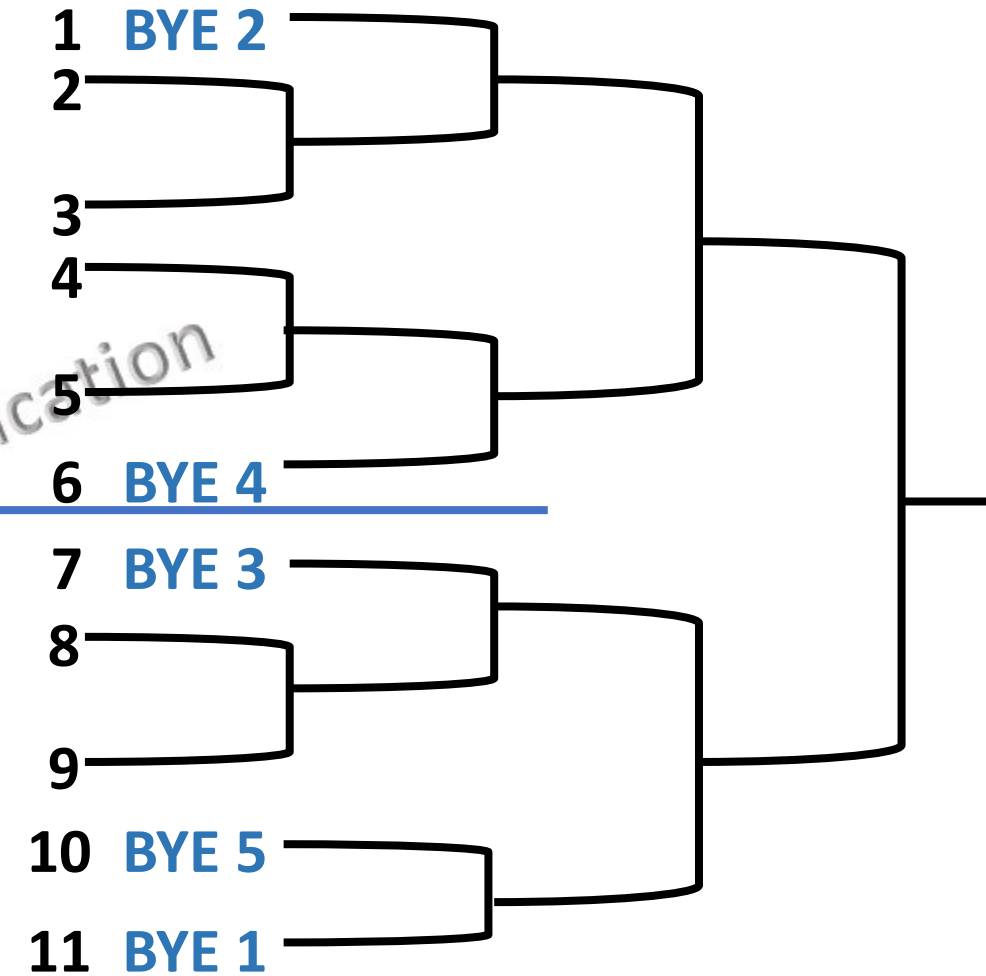
Here, Next power of 2 is  $2^4 = 16$

Therefore, Number of Round = 4

Hence for 12 teams, number of round will be 4

# METHOD OF FIXING BYE

1. **First bye** is given to the last team of the **lower half**.
  2. **Second bye** is given to the first team of the **first half**.
  3. **Third bye** is given to the first team of **lower half**.
  4. **Fourth bye** is given to the last team of **upper half**.
- And so on.



# KNOCKOUT FIXTURE FOR 14 TEAMS:

Total number of teams( $n$ ) = 14 ; here  $n$  is even.

Number of matches( $n-1$ ) =  $14 - 1 = 13$

Number of Rounds (Next power of 2 ( $2^4=16$ )) = 4 Rounds

Number of teams in Upper Half and Lower Half ( $\frac{n}{2}$ ) =  $\frac{14}{2} = 7$

**Bye = Next power of 2 – number of teams**

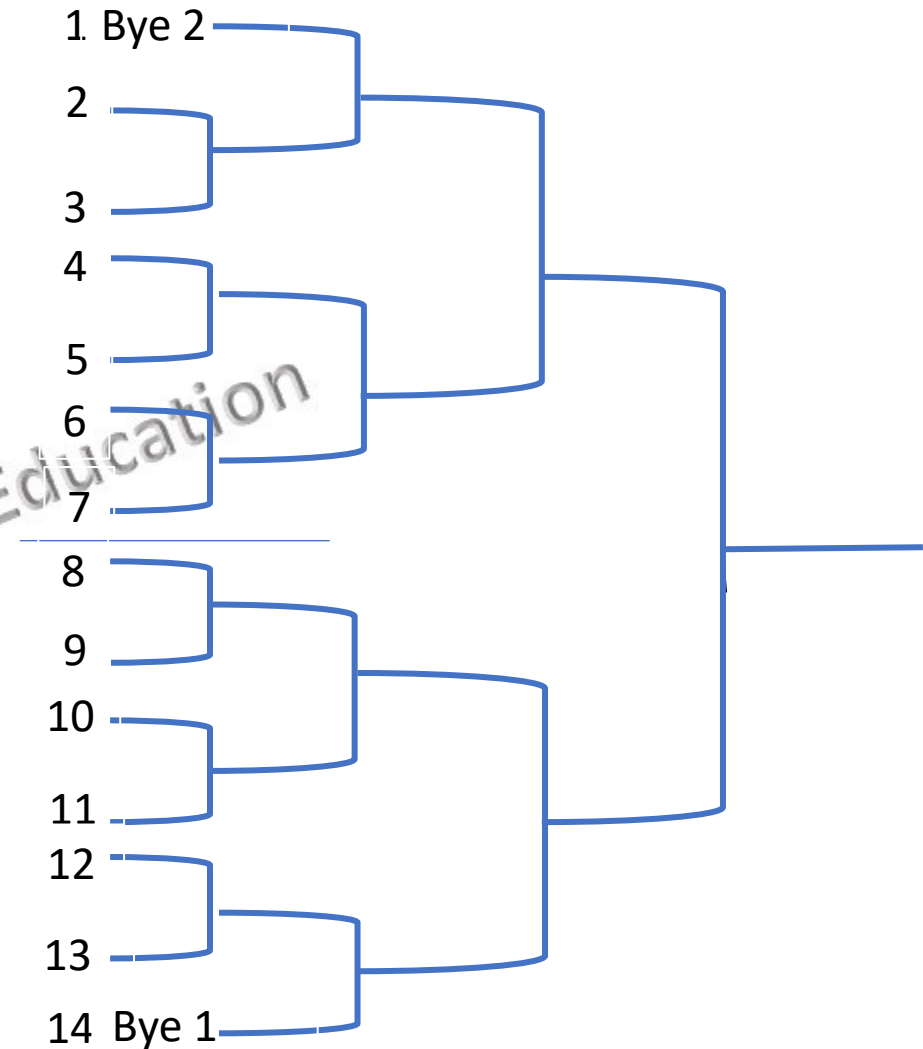
$$= 16 - 14$$

$$= 2$$

Total Bye = 2

Number of bye in Upper Half =  $\frac{nb}{2} = \frac{2}{2} = 1$

Number of bye in Lower Half =  $\frac{nb}{2} = \frac{2}{2} = 1$





# FIXTURES OF KNOCKOUT IN QUARTERS

When number of teams in a Knock out tournament are very large( more than or equal to 16), the fixture is divided into four quarters i.e. each half to be divided in two parts. The first and second quarters will complete the upper half and the third and fourth quarters will complete the Lower half.

## DIVISION OF TEAMS INTO QUARTERS:

**CASE 1:** When total numbers of team are divisible by 4:

In this case each quarters will have equal number of teams

NUMBER OF TEAMS	Q1	Q2	Q3	Q4
16	4	4	4	4
20	5	5	5	5
24	6	6	6	6
32	8	8	8	8

## CASE 2: When total numbers of team are not divisible by 4:

Let us understand through an example.

Let there are 27 teams:

QUARTER	Q1	Q2	Q3	Q4
24 TEAMS	6	6	6	6
SEQUENCE TO FILL REMAINING TEAMS	I	III	II	IV
3	1	1	1	-
DIVISION	7	7	7	6

# METHOD OF FIXING BYE

**Bye = Next power of 2 – number of teams**

For 27 teams, Number of byes =  $32 - 27 = 5$

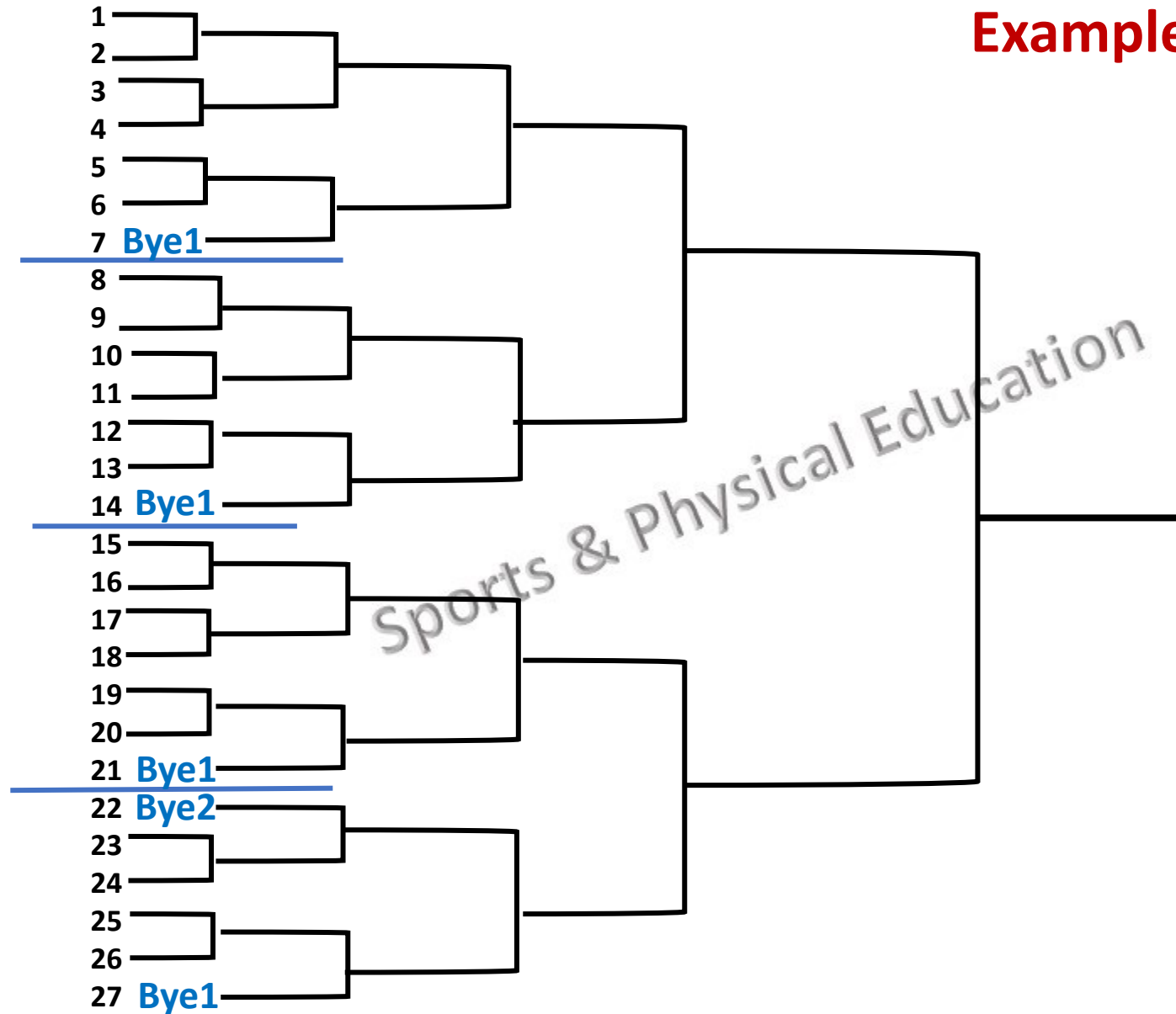
Let us fill 5 byes as explained below:

BYE IN QUARTER	BQ1	BQ2	BQ3	BQ4
4 BYES	1	1	1	1
SEQUENCE TO FILL REMAINING BYES	IV	II	III	I
1	-	-	-	1
DIVISION	1	1	1	2



# FIXTURES OF KNOCKOUT IN QUARTERS

**Example - 27 Teams**





# SEEDING

Seeding is a procedure by which good teams are placed in fixtures in such a way that stronger teams do not meet each other at the very start of a tournament. In seeding, the strong teams are selected to keep them at appropriate places in the fixtures so that they should not meet in the earlier rounds.

## METHOD OF SEEDING:

- Seeding is given in the power of 2 i.e. 2, 4, 8, 16 etc.
- With two seeded entries, one should be placed at the bottom of lower half and the other at the top of the upper half.
- If four competitor are two be seeded, the third should be placed at the upper of the lower half and other at the lower of the upper half.
- If there are byes, the seeded teams get them in order of their ranking . First team gets the first bye , second team to the second bye and so on.

## Example 17 Teams With Seeding Four Teams:

Total number of teams( $n$ ) = 17 ; here  $n$  is odd.

Number of matches( $n-1$ ) =  $17 - 1 = 16$

Number of Rounds (Next power of 2 ( $2^5=32$ )) = 5 Rounds

Number of teams in Upper Half ( $\frac{n+1}{2}$ ) =  $\frac{17+1}{2} = 9$

Number of teams in Lower Half ( $\frac{n-1}{2}$ ) =  $\frac{17-1}{2} = 8$

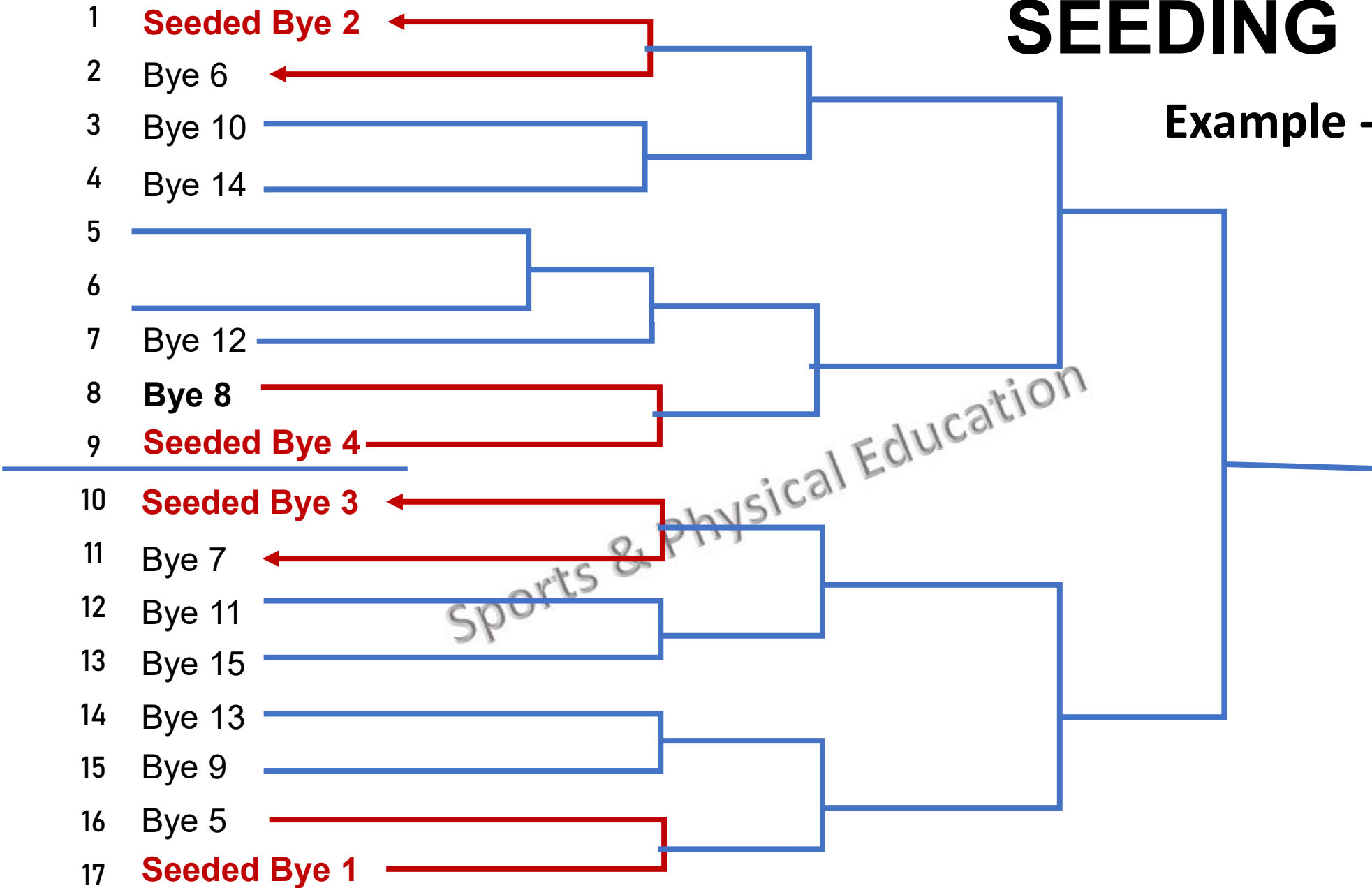
Bye = Next power of 2 – number of teams =  $32 - 17 = 15$  bye

Number of bye in Upper Half =  $\frac{nb-1}{2} = \frac{15-1}{2} = 7$

Number of bye in Lower Half =  $\frac{nb+1}{2} = \frac{15+1}{2} = 8$

# SEEDING

Example -17 Teams



# SUPPER SEEDING

When some top ranking players or teams participate in a tournament, the fixtures are generally drawn in such a manner that these players or teams play directly at Quarter Finals or Semifinals stage.

## Example-

A fixture of 24 teams participating in a tournament including 4 teams, i.e., 1, 12, 13 and 24, are given special seeding direct at the Quarter Finals stage.

For deciding the number of byes for the fixture of special seeding, first subtract the number of teams that are given special seeding (4) from the total number of teams participating (24), i.e.,  $24 - 4 = 20$ . Now, **Number of Byes =  $32 - 20 = 12$  Byes**

# SUPPER SEEDING

## ❑ 24 Teams in Quarter-

➤  $24/4 = 6$  Teams in each Quarter

Quarter	1	2	3	4
24 Team	6	6	6	6

## ❑ Bye in Quarter-

➤  $12/4 = 3$  bye in each Quarter

Quarter	1	2	3	4
12 bye	3	3	3	3
	IV	II	III	I

Number of Byes  
=  $32 - 20 = 12$  Byes



# SUPPER SEEDING

I

1 **Super Seeding**

2 **Bye1**

3 **Bye3**

4

5

6 **Bye2**

II

7 **Bye2**

8

9

10 **Bye3**

11 **Bye1**

12 **Super Seeding**

III

13 **Super Seeding**

14 **Bye1**

15 **Bye3**

16

17

18 **Bye2**

IV

19 **Bye2**

20

21

22 **Bye3**

23 **Bye1**

24 **Super Seeding**

Winner

# Thank You for Watching



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