In [1]:
```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

In [6]:
```
matches = pd.read_csv("matches.csv")
```

In [7]:
```
print("Dataset Shape:", matches.shape)
print(matches.head())
```

```
Dataset Shape: (636, 18)
   id  season       city        date                       team1  \
0   1    2017  Hyderabad  05-04-2017         Sunrisers Hyderabad
1   2    2017       Pune  06-04-2017              Mumbai Indians
2   3    2017     Rajkot  07-04-2017               Gujarat Lions
3   4    2017     Indore  08-04-2017      Rising Pune Supergiant
4   5    2017  Bangalore  08-04-2017  Royal Challengers Bangalore

                        team2                 toss_winner toss_decision  \
0  Royal Challengers Bangalore  Royal Challengers Bangalore         field
1       Rising Pune Supergiant       Rising Pune Supergiant         field
2        Kolkata Knight Riders        Kolkata Knight Riders         field
3              Kings XI Punjab              Kings XI Punjab         field
4            Delhi Daredevils  Royal Challengers Bangalore           bat

   result  dl_applied                     winner  win_by_runs  \
0  normal           0         Sunrisers Hyderabad           35
1  normal           0      Rising Pune Supergiant            0
2  normal           0       Kolkata Knight Riders            0
3  normal           0             Kings XI Punjab            0
4  normal           0  Royal Challengers Bangalore           15

   win_by_wickets player_of_match                                     venue  \
0               0    Yuvraj Singh  Rajiv Gandhi International Stadium, Uppal
1               7       SPD Smith    Maharashtra Cricket Association Stadium
2              10         CA Lynn     Saurashtra Cricket Association Stadium
3               6      GJ Maxwell                     Holkar Cricket Stadium
4               0       KM Jadhav                      M Chinnaswamy Stadium

         umpire1        umpire2  umpire3
0     AY Dandekar       NJ Llong      NaN
1  A Nand Kishore         S Ravi      NaN
2     Nitin Menon      CK Nandan      NaN
3    AK Chaudhary  C Shamshuddin      NaN
4             NaN            NaN      NaN
```

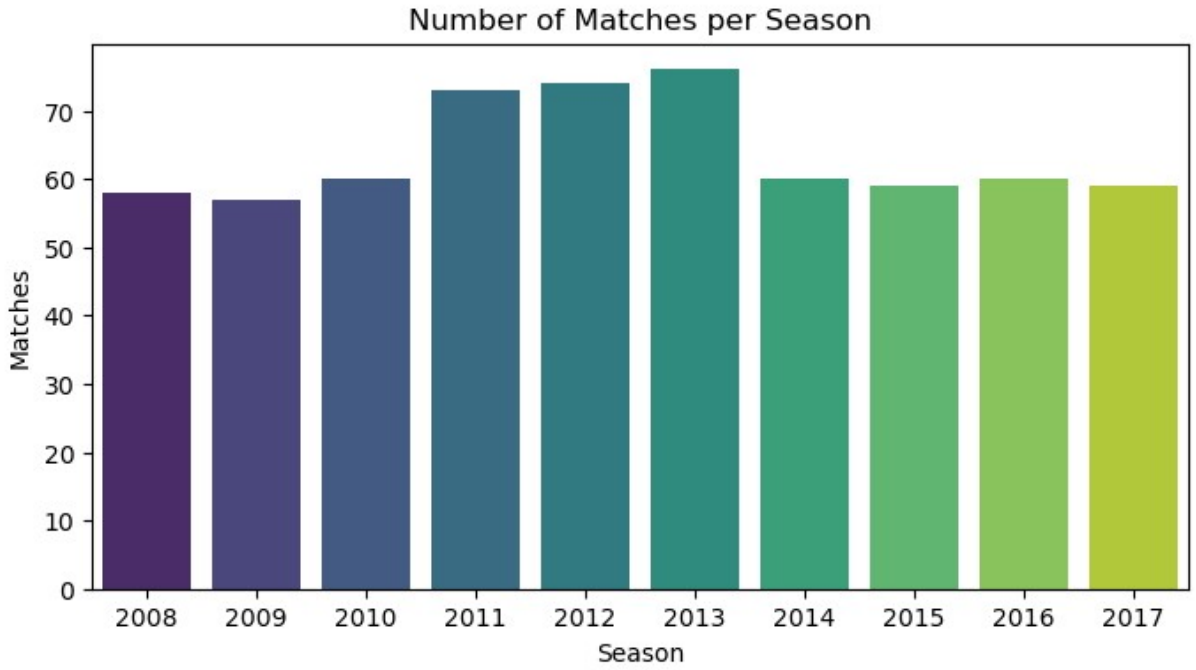
In [8]:
```
season_counts = matches['season'].value_counts().sort_index()
print("\nMatches per season:\n", season_counts)
```

```
Matches per season:
 2008    58
2009    57
2010    60
2011    73
2012    74
2013    76
2014    60
2015    59
2016    60
2017    59
Name: season, dtype: int64
```

In [12]:
```
matches['season'].value_counts().sort_index()
print("\nMatches per season:\n", season_counts)
```

```
Matches per season:
 2008    58
2009    57
2010    60
2011    73
2012    74
2013    76
2014    60
2015    59
2016    60
2017    59
Name: season, dtype: int64
```

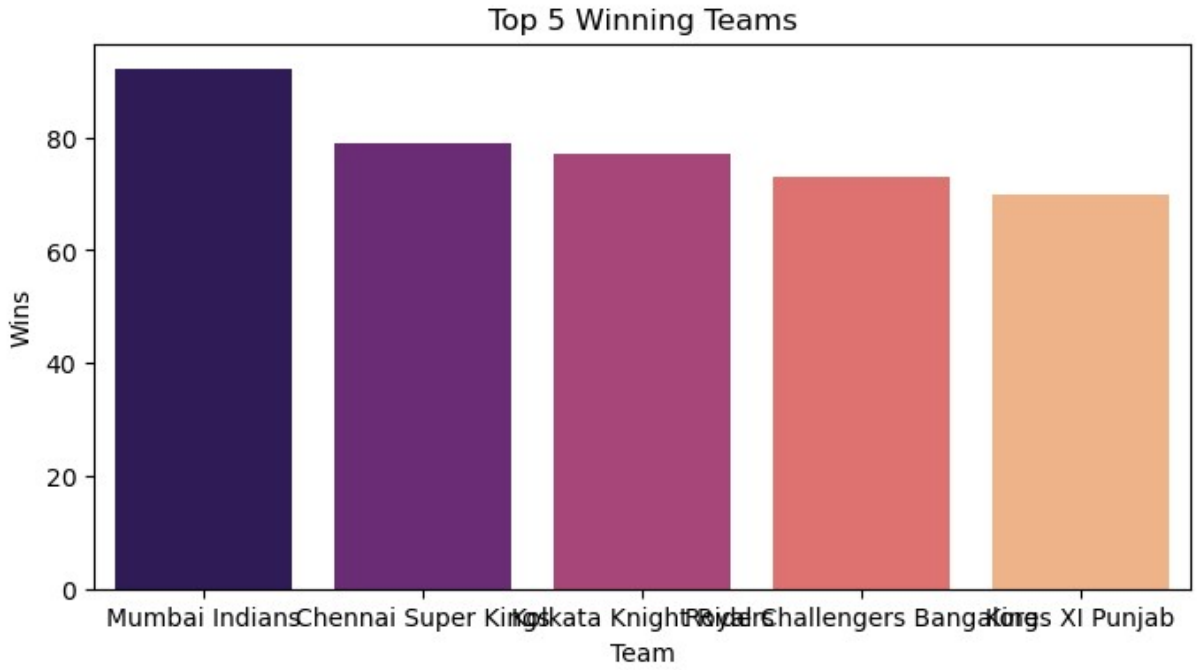
In [13]:
```
plt.figure(figsize=(8,4))
sns.barplot(x=season_counts.index, y=season_counts.values, palette="viridis")
plt.title("Number of Matches per Season")
plt.xlabel("Season")
plt.ylabel("Matches")
plt.show()
```



In [14]:
```
team_wins = matches['winner'].value_counts()
print("\nTop Winning Teams:\n", team_wins.head(5))
```

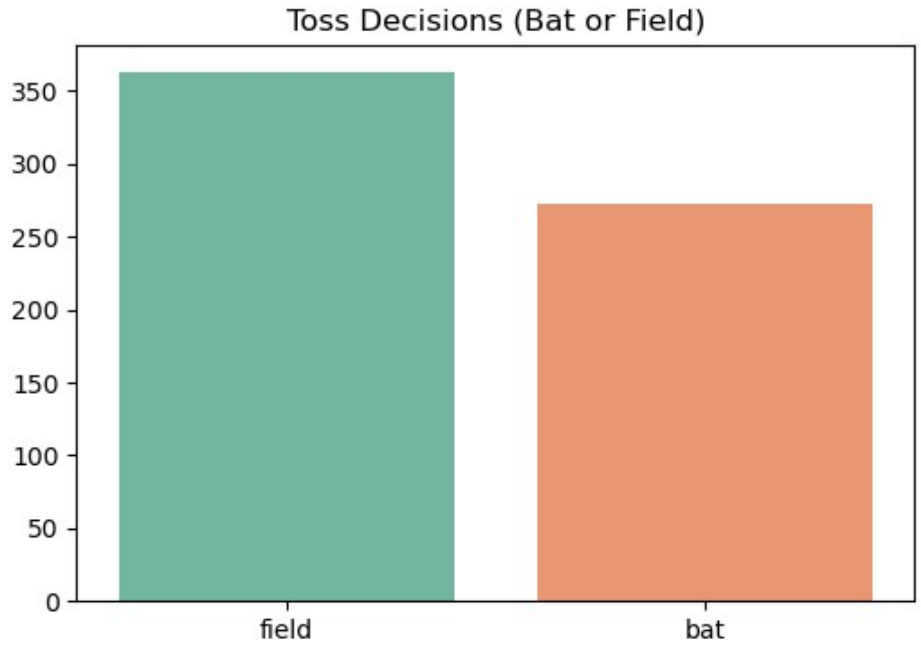
```
Top Winning Teams:
 Mumbai Indians                92
Chennai Super Kings            79
Kolkata Knight Riders          77
Royal Challengers Bangalore    73
Kings XI Punjab                70
Name: winner, dtype: int64
```

In [15]:
```
plt.figure(figsize=(8,4))
sns.barplot(x=team_wins.head(5).index, y=team_wins.head(5).values, palette="magma")
plt.title("Top 5 Winning Teams")
plt.xlabel("Team")
plt.ylabel("Wins")
plt.show()
```



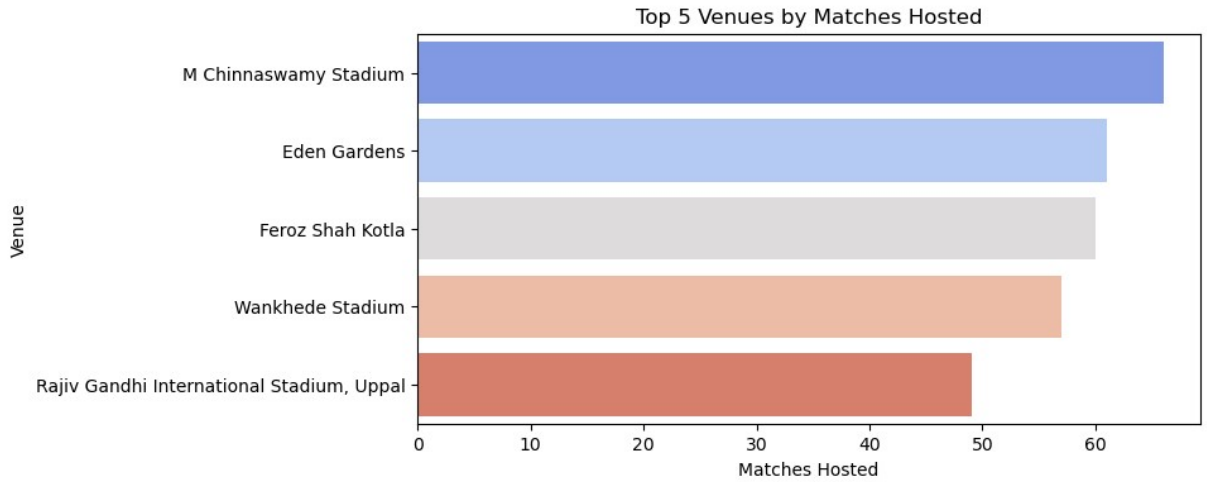
In [16]:
```
toss_decision = matches['toss_decision'].value_counts()
print("\nToss Decisions:\n", toss_decision)
plt.figure(figsize=(6,4))
sns.barplot(x=toss_decision.index, y=toss_decision.values, palette="Set2")
plt.title("Toss Decisions (Bat or Field)")
plt.show()
```

```
Toss Decisions:
 field    363
bat      273
Name: toss_decision, dtype: int64
```



In [17]:
```
venue_counts = matches['venue'].value_counts().head(5)
print("\nTop Venues:\n", venue_counts)
plt.figure(figsize=(8,4))
sns.barplot(y=venue_counts.index, x=venue_counts.values, palette="coolwarm")
plt.title("Top 5 Venues by Matches Hosted")
plt.xlabel("Matches Hosted")
plt.ylabel("Venue")
plt.show()
```

```
Top Venues:
 M Chinnaswamy Stadium                       66
Eden Gardens                                 61
Feroz Shah Kotla                             60
Wankhede Stadium                             57
Rajiv Gandhi International Stadium, Uppal    49
Name: venue, dtype: int64
```



In [ ]: