**Bell Work:**

1. **What type is this linear function?** $y = -\dfrac{4}{9}x + 8$

2. **What is the slope of the line with an equation of** $3x - 8y = 35$**?**

3. **What is the equation in slope-intercept form of a line that has a slope of** $-\dfrac{2}{5}$ **and goes through (-10, 4)?**

4. **What is the range for the constant parent function?**

Scatter Plots

You will make a scatter plot, find the line of best fit of scatter plots, find the equation of the line of best fit, and use the equation to solve word problems.

Year	Average Attendance Per Game
2006	23,654
2007	24,479
2008	24,761
2009	26,168
2010	26,807
2011	26,245
2012	26,763
2013	27,463
2014	29,078
2015	31,219

Baseball Team's Average Attendance
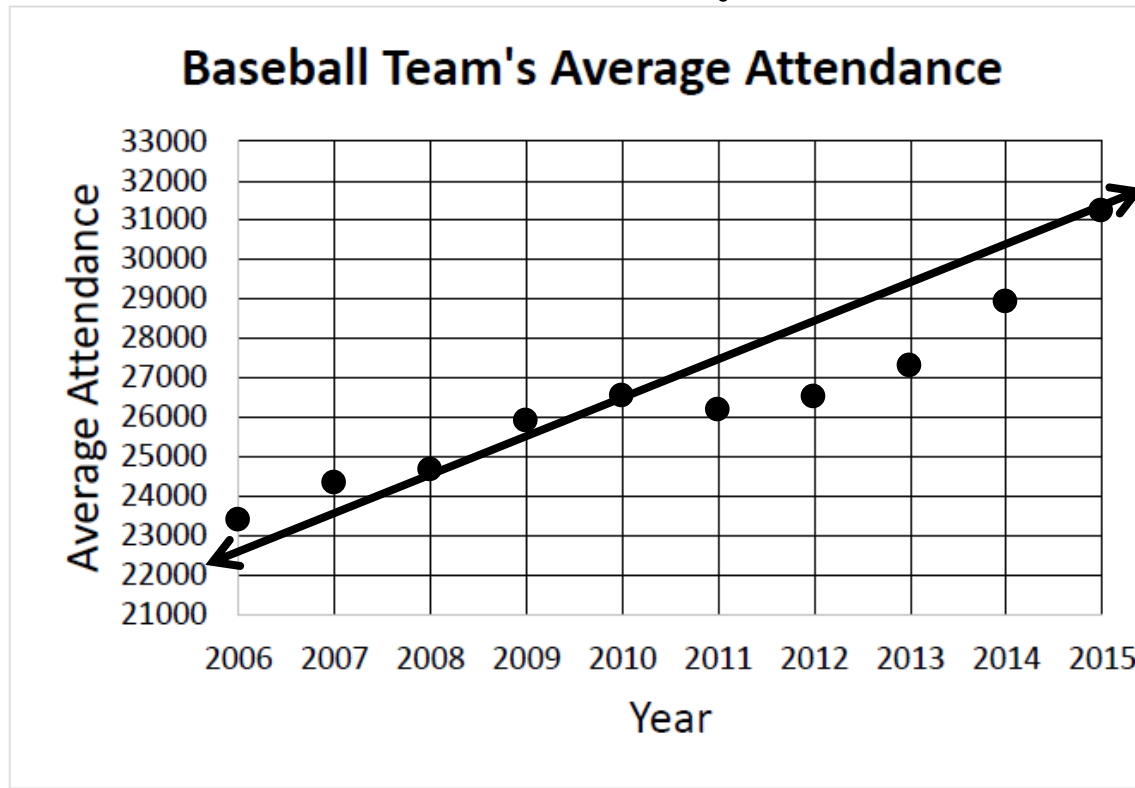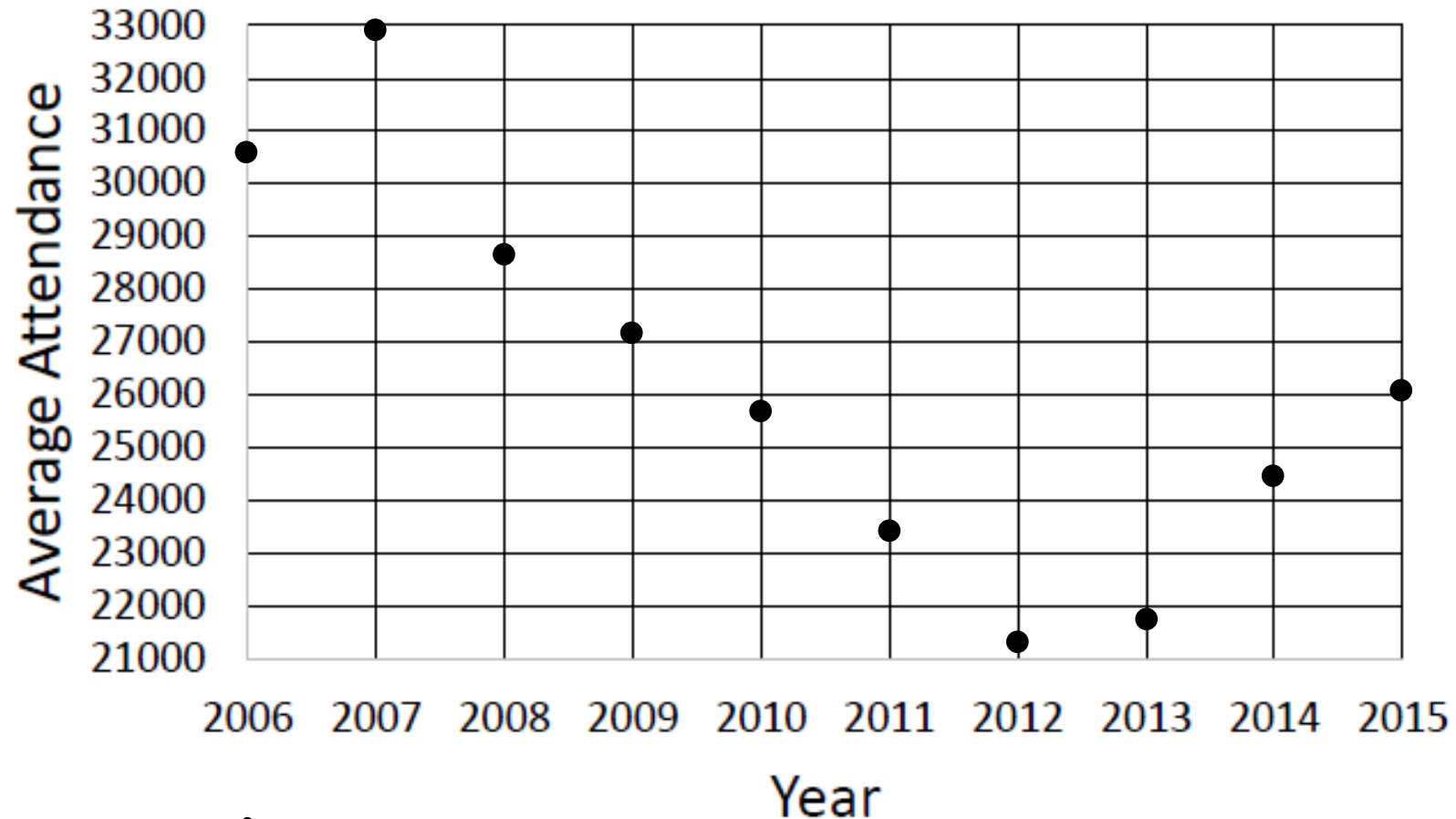
$$y = 950x - 239,000$$

They will probably draw 33,000 per game next year.

Scatter Plots

Year	Average Seattle Mariners Attendance
2006	30,634
2007	32,993
2008	28,761
2009	27,116
2010	25,746
2011	23,411
2012	21,258
2013	21,747
2014	25,485
2015	27,081

Seattle Mariners' Average Attendance

Plot the points on the graph.

Scatter Plots

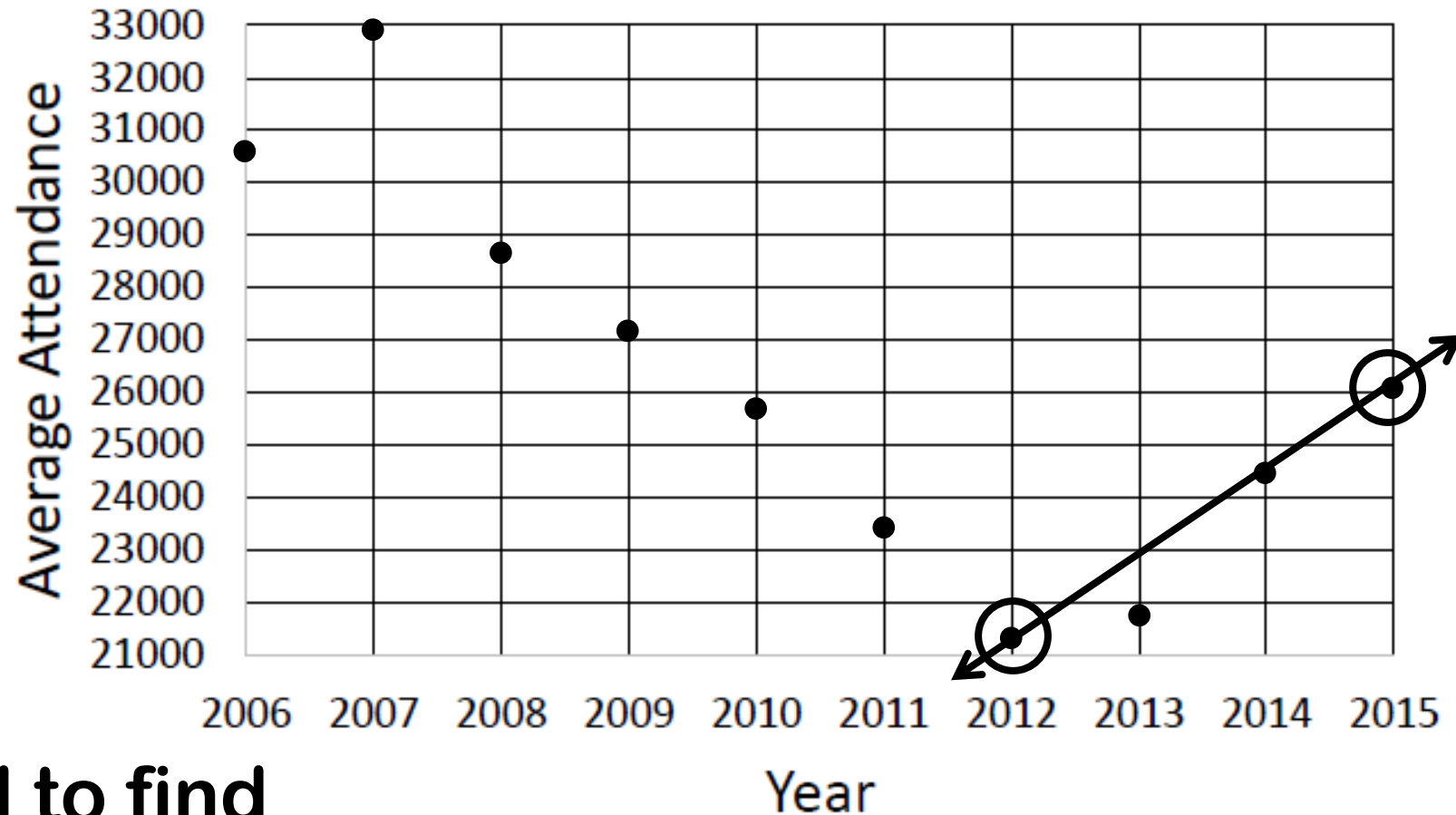| Year	Average Seattle Mariners Attendance
2006	30,634
2007	32,993
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Seattle Mariners' Average Attendance
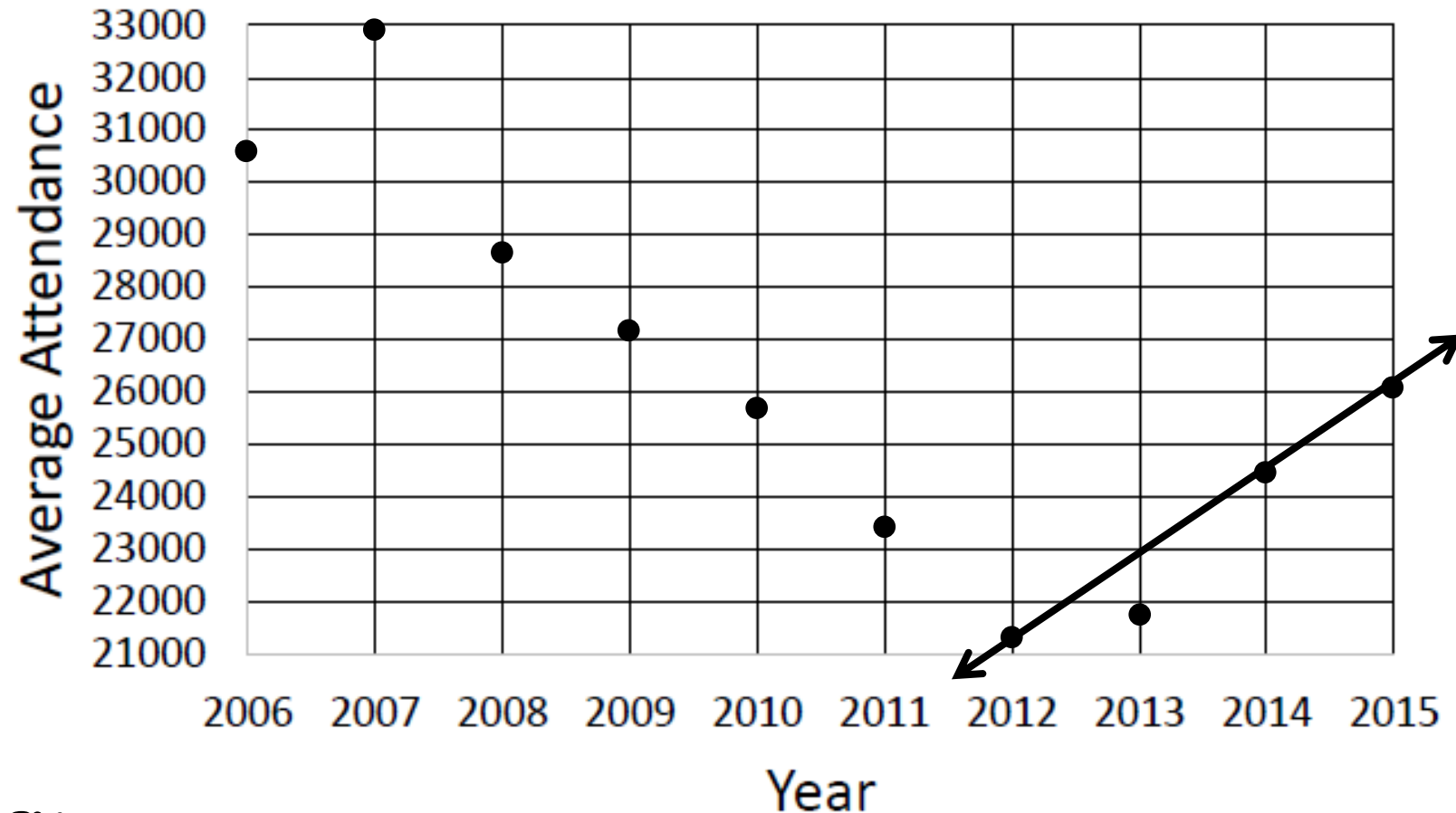
Find the line of best fit.

We ignore the years from 2006 to 2011 since they are declining.

Scatter Plots

Year	Average Seattle Mariners Attendance
2006	30,634
2007	32,993
2008	28,761
2009	27,116
2010	25,746
2011	23,411
2012	21,258
2013	21,747
2014	25,485
2015	27,081

Pick the 2 points used to find the line of best fit.

Scatter Plots

Year	Average Seattle Mariners Attendance
2006	30,634
2007	32,993
2008	28,761
2009	27,116
2010	25,746
2011	23,411
2012	21,258
2013	21,747
2014	25,485
2015	27,081

Find the equation of the line of best fit.

$$\frac{27{,}081 - 21258}{2015 - 2012} = 1941$$

$$y - 27081 = 1941(x - 2015)$$

$$y - 27081 = 1941x - 3911115$$

$$y = 1941x - 3884034$$

What might the attendance per game be for the 2016 season?

$$y = 1941x - 3884034$$

$$y = 1941(2016) - 3884034 = 29022$$

They might have an attendance of 29,022 per game next year.

When will the attendance reach 30,000 per game?

$$y = 1941x - 3884034$$

$$30000 = 1941x - 3884034$$

$$3914034 = 1941x$$

$$2016.5 = x$$

They might have an attendance of 30,000 per game in 2017.

Scatter Plots

Assignment:

FLUENCY PRACTICE: Making Scatter Plots