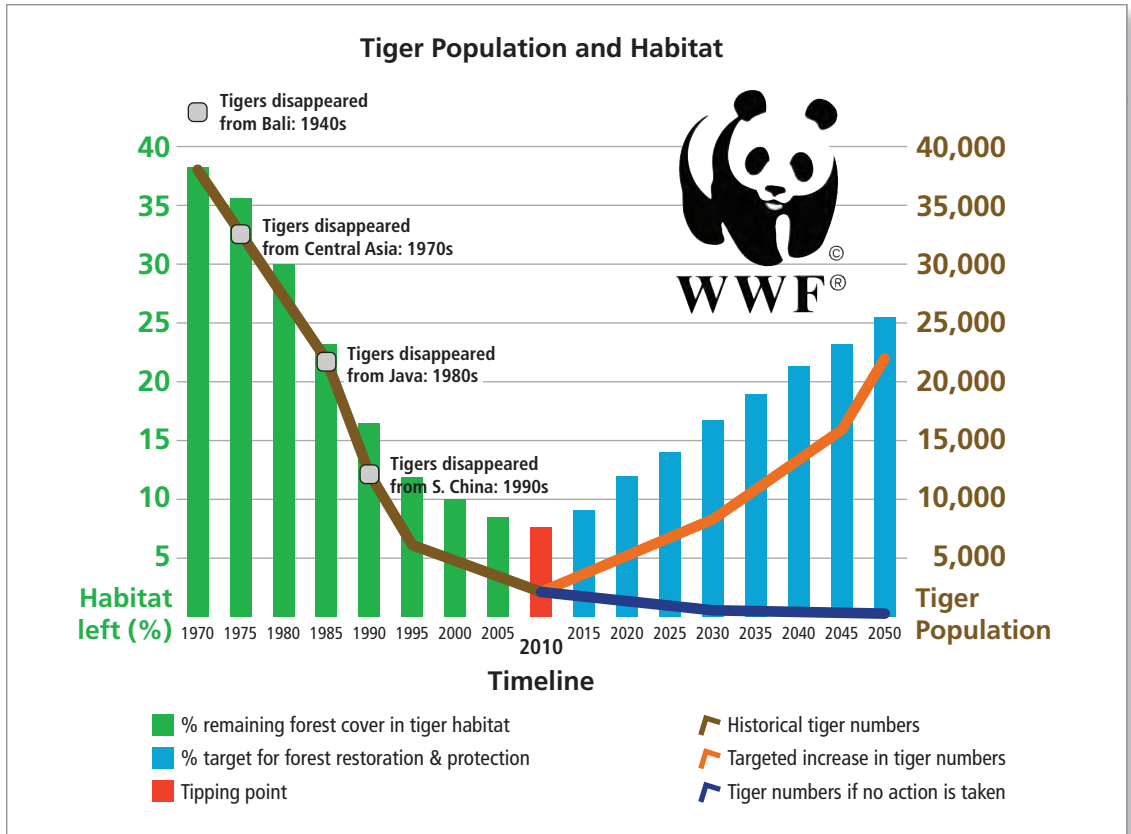


EXAMPLE 4 Predicting a Future Event

Discuss the following graph prepared by the World Wildlife Fund. What exponential pattern can you see in the graph?



SOLUTION

From the graph, the estimated tiger population appears to be decreasing with an exponential pattern, as follows.

1985	1990	1995	2000	2005
22,000	12,500	6000	5000	3800

$$\frac{12,500}{22,000} \approx 0.568 \quad \frac{6000}{12,500} = 0.480 \quad \frac{5000}{6000} \approx 0.833 \quad \frac{3800}{5000} = 0.760$$

Although the rate of decrease in each 5-year period varies, you need to remember that these data are difficult to collect and consequently are only an approximation. Even so, it appears that the tiger population decreases to almost 70% of what it was every 5 years.

✓ Checkpoint

Help at Math.andYOU.com

Estimate the percent of remaining tiger habitat from 1985 through 2010. Describe the pattern.