

Solve the problem.

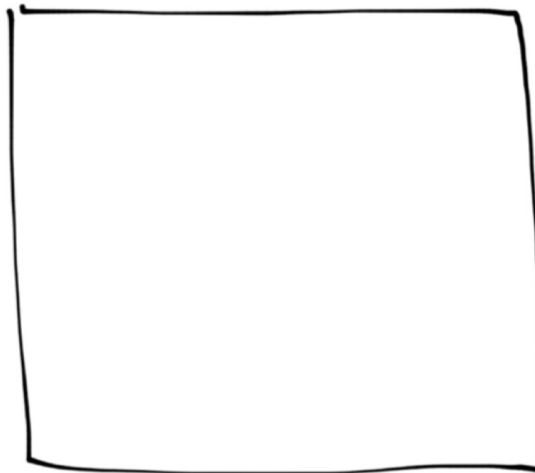
- 19) During 1991, 200,000 people visited Rave Amusement Park. During 1997, the number had grown to 834,000. If the number of visitors to the park obeys the law of uninhibited growth, find the exponential growth function that models this data.

Xmin = _____

Xmax = _____

Ymin = _____

Ymax = _____



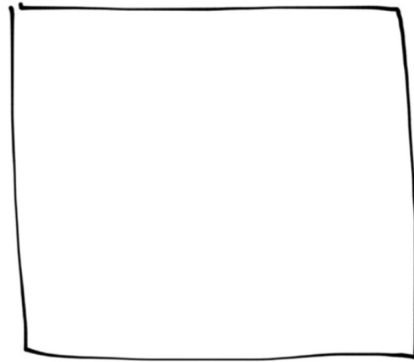
20) A culture of bacteria obeys the law of uninhibited growth. If 140,000 bacteria are present initially and there are 609,000 after 6 hours, how long will it take for the population to reach one million?

X_{min} = _____

X_{max} = _____

Y_{min} = _____

Y_{max} = _____



1. The number of Dunkin Donuts worldwide follows the Law of Uninhibited Growth. In the year 2000, Dunkin Donuts opened its 5,000th location in Bali, Indonesia. At the end of 2011, there were 10,083 Dunkin' Donuts stores worldwide.

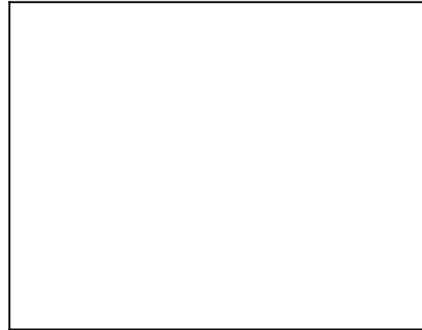
a) Find the exponential growth constant k to four decimals.

$X_{\min} =$ _____

$X_{\max} =$ _____

$Y_{\min} =$ _____

$Y_{\max} =$ _____



a) $k =$ _____

b) Approximate the number of Dunkin Donuts franchises world wide in 2008.

b) _____

c) Approximate the number of Dunkin Donuts franchises world wide in 2015.

c) _____

d) Find to the nearest year when the number of Dunkin Donuts worldwide will reach 100,000.

