Question 4

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4. A group of hedgehogs was released in the south-Austin area. Each year, the size of the population was recorded. Their population growth over time was modeled with a logistic growth curve. The model fit was 0.972.

Here are the model parameters:

C = 2,000

a = 152.10

b = 2.17

problem

1/1 point (graded)

4a. According to this model, what will be the maximum number of hedgehogs in South Austin?

2000 ✔

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Submit You have used 1 of 1 attempt

✔ Correct (1/1 point)

problem

1/1 point (graded)

4b. What was the size of the hedgehog population when the growth rate began to slow down?

1000 ✔

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✔ Correct (1/1 point)

problem

1/1 point (graded)

4c. How many years had passed when the population growth rate began to slow down? *(Round to 1 decimal place.)*

6.5 ✔

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✔ Correct (1/1 point)

problem

1/1 point (graded)

4d. The hedgehogs were released in South Austin in 2001. How many hedgehogs were living in South Austin by 2010, according to the model? *(Round to a whole number.)*

1750 ✔

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✔ Correct (1/1 point)