

## 2.2a Density Curves

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The screenshot shows a statistics quiz interface. At the top, there is a navigation bar with a bell icon, a dropdown menu set to '2a Density', and a user profile for 'Michael Brodskiy'. Below this is a breadcrumb trail: 'Statistics AP-Thompson Year-12462 (66479) > Activities and Due Dates > 2a Density curves and the empirical rule'. The main interface is divided into three sections. The left section, titled '12 of 12 Questions', lists six questions, each with a '100%' score and 'Correct' status. The middle section shows the 'Assignment Score: 100%' and buttons for 'Resources', 'Give Up?', 'Solution', and 'Next Question'. The right section displays 'Question 12 of 12' with a 'My Attempt' button. The question text is: 'A different species of cockroach has weights that are approximately Normally distributed with a mean of 50 grams. After measuring the weights of many of these cockroaches, a lab assistant reports that 14% of the cockroaches weigh more than 55 grams. Based on this report, what is the approximate standard deviation of weight for this species of cockroaches?'. The options are: 4.6 (selected), 14, 5, 6.2, and 'Cannot determine without more information.'. At the bottom of the question area, a green bar indicates 'Solved'.

Statistics AP-Thompson Year-12462 (66479) > Activities and Due Dates > 2a Density curves and the empirical rule

12 of 12 Questions

Assignment Score: 100%

Resources Give Up? Solution Next Question

Question 12 of 12

My Attempt

A different species of cockroach has weights that are approximately Normally distributed with a mean of 50 grams. After measuring the weights of many of these cockroaches, a lab assistant reports that 14% of the cockroaches weigh more than 55 grams. Based on this report, what is the approximate standard deviation of weight for this species of cockroaches?

☒ 4.6

☐ 14

☐ 5

☐ 6.2

☐ Cannot determine without more information.

Solved