More Bowling with Jacob

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour:\_\_\_\_\_\_\_

Jacob decided to bowl with various weights of bowling balls and see how many pins he knocked down. He decided to try the 8 lb., 10 lb., and 14 lb. bowling balls. He made 5 attempts to knock down 10 standing pins with each weight. He then took the average number of pins for each weight.

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| --- | --- |
| Weight of bowling ball | Pins knocked down (average) |
| 8 lbs. | 6.4 |
| 10 lbs. | 4.8 |
| 14 lbs. | 3.8 |

Place an **X** by each true statement below based on Jacob's data and scatter plot provided below.

\_\_\_\_\_ **A** If Jacob knocks down 5 pins when he uses the 12 lb. ball, it will be more than expected.

\_\_\_\_\_ **B** If Jacob knocks down 4 pins when he uses the 12 lb. ball, it will be more than expected.

\_\_\_\_\_ **C** If Jacob uses a 16 lb. ball, he can expect to knock down fewer than 3.7 pins on average.

\_\_\_\_\_ **D** Jacob's accuracy is improving as the ball’s weight increases.

\_\_\_\_\_ **E** Jacob can knock down more than 60% of the pins with the 8 lb. ball.

Explain your thinking. Describe what Jacob's data table and graph show.