



“El Hamster En La Carsel” by Pietro Squiggles

A world famous painting, “El Hamster En La Carsel” hangs in the World Famous Museum for Small Furry Creatures (WFMSFC). The painting is made up of 16 rectangles that are $2x$ by $3x$ (see bottom left.) The painting also has a 3 inch border around the perimeter.

What is the Area of JUST the painting in terms of X ? Explain how you arrived at your answer.

What is the Area of the PAINTING AND BORDER in terms of X ? Express your answer as a trinomial. Explain how you arrived at your answer.

Two PROFESSIONAL HAMSTER DIVERS dove into a pool of water from a initial height of five feet. Their paths are model by the following functions where x is seconds and $f(x)$ and $g(x)$ are vertical feet. The X-axis represent the water level.

$$f(x) = 2x^2 - 8x + 5$$

$$g(x) = x^2 - 7x + 5$$



Eeeeeeeeeee
eeeeee!!!!!!!



¡Soy un profesional!

...that said, answer the following below.

- Which hamster ENTERED the water first? Support your conclusion mathematically.
- Which hamster EMERGED from the water LAST? Support your conclusion mathematically.
- Which hamster was underwater the longest? Support your conclusion mathematically.