

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## **My Grandmother's Heels**

I have mostly good memories of my grandmother, but I have one painful memory. My grandmother had occasionally stepped on my toes over the years, and I never thought much of it. Then one day she stepped on my toes while wearing high heels, and I couldn't believe how much more painful it was.

If my grandmother weighted 170 pounds and all of her weight was on a 1/2-inch diameter heel, what pressure was exerted on my toes that day?

Extension: If she stepped on my toes with the front of a regular shoe that is about 2 inches by 3 inches, what pressure was exerted on my toes before tht painful day?

*Show your work, and write your answer in a complete sentence.*