6.RP Unit Conversions

Task

There are many resources available on the computer to help converting between different units. This task examines a few important aspects of some of these conversions.

a. According to an online calculator, there are 1728 cubic inches in a cubic foot.
    i. Explain how to check the calculator's answer. Is it correct?

    ii. How many cubic inches are there in 5 cubic feet? What about in 200 cubic feet? Explain how to find these answers without the calculator using the number of cubic inches in one cubic foot.

b. A given website converts kilograms to pounds allowing the user to select how many decimals to provide in the conversion. With no decimals it says "1 kilogram = 2 pounds." For one decimal, it says "1 kilogram = 2.2 pounds."
    i. According to these two conversion rates, how many pounds are in 5 kilograms?

    ii. What would be a better way of stating these conversion rates?