ANSWERS

A) _____

B) _____

C) _____

A) Find <u>all</u> values of x for which $2009 + \sqrt{x - 2009} = x$

B) Find <u>all</u> values of x that satisfy $x - \dfrac{6}{x} = 3 - \dfrac{1}{2}$

C) On "Are You Smarter Than a 5th Grader", a contestant, had to answer the $1,000,000 question, "At what temperature does a Celsius thermometer and a Fahrenheit thermometer record the same temperature?". Math was not his strong suit and, under the pressure of the show, he incorrectly remembered the conversion formula as $F = \dfrac{5}{9}C - 32$ and gave an answer $k°$ lower than the correct answer. He would have been able to "derive" the correct formula if he recalled the equivalent temperatures for the boiling and freezing of water, namely (212° F, 100° C) and (32° F, 0° C).

Compute |k|, the margin by which he missed becoming a millionaire.