Be sure to show your work to justify your answer. Correct answers with no work will not receive full points.

1. Find f such that $f'(x) = x^{1/2} - 4$ and $f(4) = 0$

2. State the formula for Newton's method. For the function f you found in part 1, formulate Newton's method and find x_1 from the starting value $x_0 = 16$. **No calculators and do not simplify**.