Work on these with your partner(s) at the board

1. Simplify the following expressions by hand as far as you can (no decimals)

   (a) $2^3 \cdot 2^{-3}$

   (b) $4^{3/2}$

   (c) $\left(\frac{4}{9}\right)^{3/2}$

   (d) $81^{-1/4}$

   (e) $\sqrt[3]{24}\,\sqrt[3]{9}$

2. The S&P 500 has had an average annual rate of return of 10.69% since 1957.

   (a) If you invest \$1000 now and the fund achieves its average rate every year, what will your balance be in 3 years? In 15?

   (b) What if the rate of return is 17.49%? 27.09%?