

§ 2.4 Simplifying Rational Functions**Thinking & Inquiry**

Danielle purchased 6 raffle tickets for a school fundraiser. A number of n tickets are randomly drawn from a bag. The person with at least two winning tickets wins the grand prize. The function:

$$P(n) = \frac{6n^3 - 6n^2}{8n^3 - 12n^2 + 4n}$$

models the probability of winning the grand prize.

- a) If 10 numbers are drawn ($n=10$), what is the probability that Danielle will win the grand prize?
- b) Write the function in simplest form.
- c) State any restrictions on the variable.