Practice Exercises

A. Find the values for the variable for which each rational expression is undefined.

1. $\dfrac{5}{2y}$
2. $\dfrac{5a}{3a-2}$
3. $\dfrac{2b+6}{b^2-2b+1}$
4. $\dfrac{r+s}{r^2+3r-10}$
5. $\dfrac{3m}{m^2-2m-15}$

B. Give the domain of each rational expression.

1. $\dfrac{5}{3x}$
2. $\dfrac{a}{5-a}$
3. $\dfrac{3}{3x+4}$
4. $\dfrac{2x+1}{x^2+1}$
5. $\dfrac{7n+6}{4n^2-1}$

Problem Set

A. Find the values for the variable for which each rational expression is undefined.

1. $\dfrac{x}{2x+1}$
2. $\dfrac{5x+1}{4x^2-1}$
3. $\dfrac{m}{(m-3)^2}$
4. $\dfrac{a+b}{25a^2-1}$
5. $\dfrac{n+2}{4n^2-4n+1}$

B. Give the domain of each rational expres-

sion.

1. $\dfrac{x+1}{x^2}$
2. $\dfrac{7x}{2x-1}$
3. $\dfrac{m}{m^2-25}$
4. $\dfrac{x^2+4}{x^2-4}$
5. $\dfrac{2x^2-1}{4x^2+4x+1}$