

Name: _____

Date: _____

Learning Goal 6.1

Simplifying and applying operations to rational expressions, identifying any non-permissible values.

Simplify and state the non-permissible values.

a. $\frac{d}{2\pi r} \times \frac{2\pi r h}{d-2}$

b. $\frac{5n^4}{-2} \div \frac{(5n)^2}{6}$

c. $\frac{y^2-9}{r^3-r} \times \frac{r^2-r}{y+3}$

d. $\frac{2}{b-3} \div \frac{4b}{b^2-9}$

e. $\frac{x^2+9x+20}{2x^2+6x-8} \times \frac{x^2-1}{3x+15}$

f. $\frac{c^2-6c-7}{c^2-49} \div \frac{c^2+8c+7}{c^2+7c}$

g. $\frac{3x+12}{3x^2-5x-12} \div \frac{12}{3x+4} \times \frac{2x-6}{x+4}$

h. $\frac{1-2/a}{1-4/a^2}$

Write a polynomial A so that the expression simplifies to $1/5$.

$$\frac{x^2+6x+9}{5x^2+15x} \div \frac{3x^2+11x+6}{A}$$