Dividing Rational Expressions Video Worksheet Name:_____ Date: _____

Learning Target: I can divide rational expressions and explain how that is the same as dividing fractions.

Directions: Follow along with the video to divide and simplify the following Rational Expressions. Also, **list all restrictions on the variable**.

1. $\frac{6a-12}{a+7} \div \frac{6}{a+7}$	2. $\frac{a^2+3a+2}{a+2} \div \frac{a^2-9a-10}{a^2-12a+20}$
3. $\frac{56a-64}{9a^2+54a} \div \frac{28a-32}{a+6}$	4. You try! $\frac{5x^2+50x}{x^2+5x+4} \div \frac{x+10}{x^2+x-12}$

Dividing Rational Expressions: Your Turn

Divide and simplify the following Rational Expressions. Also, list all restrictions on the variable.

1.
$$\frac{2}{6v-6} \div \frac{v-4}{21v^3-21v^2}$$

2.
$$\frac{27b+63}{b+4} \div \frac{21b+49}{b+4}$$

3.
$$\frac{9x^2}{9x^3+27x^2} \div \frac{6x^2-6x}{6x^2+18x}$$

4.
$$\frac{n^2+3n-28}{n-4} \div \frac{n^2-2n-63}{n^2-7n-18}$$

5.
$$\frac{n^2-2n-15}{n^2-11n+30} \div \frac{10}{10n-60}$$

6.
$$\frac{4b+36}{b+2} \div \frac{b^2+6b-27}{b^2-b-6}$$