

## AA PREP—INTRODUCTION TO RATIONALS LECTURE

**EX 1:** Simplify each rational expression.

a) $\frac{x}{x}$	b) $\frac{2 \cdot 3 \cdot 4 \cdot 5}{2 \cdot 3 \cdot 4 \cdot 5}$
c) $\frac{x+4}{x+4}$	d) $\frac{x-8}{8-x}$
e) $\frac{x+4}{4x}$	e) $\frac{x^2+2x-35}{x^2-25}$

**EX 2:** Perform each operation (multiplication or division). Simplify.

a) $\frac{15}{2} \cdot \frac{8}{25}$	b) $\frac{14}{11} \div \frac{21}{55}$
c) $\frac{x-6}{x+2} \cdot \frac{x+2}{6-x}$	d) $\frac{x^2-x-6}{x^2-4} \div \frac{x^2-9}{x^2-4x+4}$

**EX 3:** Perform each operation (addition or subtraction). Simplify.

a) $\frac{2}{7} + \frac{3}{7}$	b) $\frac{1}{3} - \frac{7}{4}$
c) $\frac{5}{x-4} + \frac{6}{x-4}$	d) $\frac{4}{x+1} - \frac{3}{x^2-2x-3}$