## 12.6 Rational Expressions with LIKE Denominators

# Adding & Subtracting

### STEPS:

1) LCD

CLT

- 2) Operations (Add or Subtract)
- 3) Simplify, if possible Multiply by -1 then Add

Add/Subtract each without using a calculator.

$$\frac{2}{7} + \frac{3}{7} = \boxed{\frac{5}{7}}$$

$$\frac{5}{16} + \frac{3}{16} = \frac{8}{16} = \frac{1}{2}$$

$$\frac{5}{8} + \frac{3}{8} = \frac{2}{8}$$
LCD: 8

$$\frac{3}{5} + \frac{1}{5} = \boxed{\frac{2}{5}}$$

$$2 = \boxed{5}$$

#### 12.6 Adding & Subtracting Rational Expressions with Like Denominators with work

Find each sum. 
$$\frac{4b}{15} + \frac{16b}{15} = \frac{20b}{15}$$
LCD: 15

$$\frac{6c}{c+2} + \frac{12}{c+2} = \frac{6c}{c+2}$$

$$\frac{6c}{c+2} + \frac{12}{c+2} = \frac{6c+12}{c+2}$$

$$1 + \frac{12}{c+2} = \frac{6c+12}{c+2}$$

#### Find the difference.

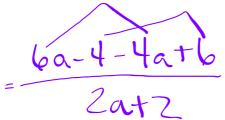
$$\frac{3s}{11-s} + \frac{+5s}{s-11}$$
-s+11 -s+11
$$LCD: -s+11$$
=\begin{align\*} (8s) \\ (-S+11) \end{align\*}

$$\frac{7x+9}{x-3} + \frac{x+5}{x-3} = \frac{7x+9-x+5}{x-3}$$

$$1 + \frac{x+5}{x-3} = \frac{6x+14}{x-3}$$

12.6 Adding & Subtracting Rational Expressions with Like Denominators with work

$$\frac{6a-4}{2a+2} + \frac{-4a+6}{2a+2}$$



$$=\frac{(20+2)}{(20+2)}=\frac{1}{2(0+1)}=\frac{1}{2(0+1)}=\frac{1}{2(0+1)}$$

Tell me the difference between adding and subtracting fractions with like denominators.

12.6 WS

B) odds