

Algebra /

Adding rational expressions with common denominators and GCF factoring

$$\frac{3b+2}{6b} + \frac{5b-8}{6b} = \frac{(3b+2) + (5b-8)}{6b}$$

combine like terms

$$\frac{8b-6}{6b}$$

Fraction World

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

① keep denom. same
 ② add numerator

- ① 3 terms in this problem: $8b$, -6 , $6b$
- ② If you can divide ALL of them by the same thing, then reduce
- ③ Divide everything by 2

$$\boxed{\frac{4b-3}{3b}}$$

OR

$$\frac{8b-6}{6b} = \frac{\cancel{2}(4b-3)}{\cancel{2}(3b)} = \frac{4b-3}{3b}$$

- ① Simplify the top
- ② Simplify the bottom
- ③ cancel out

$$\frac{8x}{x-2} - \frac{16}{x-2} = \frac{8x-16}{x-2} = \frac{\cancel{8}(x-2)}{\cancel{(x-2)}} = \frac{8}{1} = \boxed{8}$$
