

1. Simplify  $\frac{x^{-4}y^3}{(x^{-3})^6}$

2. Simplify:  $|-5| + |7|(-2)$

3. Solve the inequality:  $6x - (5x - 7) < 3x - 4$

4. Simplify:  $\frac{7 - 15 + (-8)}{(-3) \cdot \sqrt{9}}$

5. Simplify:  $-5(2x - 6y)$

6. Let  $A = \{1, 2, 3, 4\}$  and  
 $B = \{2, 3, 4, 5\}$ . Find  $A \cap B$ .

7. Simplify:  $-8(4x - 7) + 4(-5x - 4) - 3(2x + 3)$

8. Solve for y:  $-(8 + 3y) + 5 = 2y + 6$

9. Solve the absolute value:  $|x - 5| = 13$

10. Solve for k:  $6k - 3(5k + 2) = 4(1 - k)$

11. Solve for h:  $B = \frac{1}{3}Ahw$

12. Solve for y:  $x + 7y = 5$

13. Simplify:  $-3^2$

14. Solve the inequality:  $|3x - 1| < 8$

15. Simplify:  $\frac{(3ab^3)^{-2}}{4ab}$