

### Add and Subtract Rational Expressions

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Simplify:  $\frac{2x+5}{3} - \frac{5}{x}$

A.  $\frac{2x^2 + 5x - 15}{3x}$

B.  $\frac{2}{3}$

C.  $\frac{7x - 15}{3x}$

D.  $\frac{2x}{3-x}$

4. Add:  $\frac{5}{2x-8} + \frac{3x}{x^2-16}$

A.  $\frac{11x}{2(x+4)(x-4)}$

B.  $\frac{11x+4}{2(x+4)(x-4)}$

C.  $\frac{11x+20}{2(x+4)(x-4)}$

D.  $11x+20$

2. Simplify:  $\frac{x-3}{x+3} + \frac{6}{x-3}$

A.  $\frac{x^2+27}{x^2-9}$

B.  $\frac{1}{x^2-9}$

C.  $\frac{2x-6}{x^2-9}$

D.  $\frac{2x^2-18}{x^2+9}$

5. Simplify:  $\frac{6n-3}{n} - \frac{2n+4}{n}$

A.  $\frac{4n+1}{n}$

B. 3

C.  $4n+1$

D.  $\frac{4n-7}{n}$

6. Simplify:  $\frac{x-3}{x+2} + \frac{5}{x-2}$

A.  $\frac{x^2+16}{x^2-4}$

B.  $\frac{1}{x-2}$

C.  $\frac{x+2}{2x}$

D.  $\frac{x+2}{x^2-4}$

3. Simplify:  $\frac{5x}{x-1} - \frac{2x}{x-2}$

A.  $\frac{3x^2-8x}{(x-1)(x-2)}$

B.  $\frac{x^2-3x+2}{(x-1)(x-2)}$

C.  $\frac{3x^2+8x}{(x-1)(x-2)}$

D.  $\frac{3x^2+12x}{(x-1)(x-2)}$

7. Subtract and simplify:  $\frac{2x+8}{x^2+6x+8} - \frac{x+16}{x^2+8x+12}$

A.  $\frac{x-8}{-2x-4}$

B.  $\frac{x-4}{(x+2)(x+6)}$

C.  $\frac{x-8}{(x+4)(x+6)}$

D.  $\frac{-x-14}{(x+2)(x+6)}$

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1.  
Answer: A  
Objective: A.APR.7

2.  
Answer: A  
Objective: A.APR.7

3.  
Answer: A  
Objective: A.APR.7

4.  
Answer: C  
Objective: A.APR.7

5.  
Answer: D  
Objective: A.APR.7

6.  
Answer: A  
Objective: A.APR.7

7.  
Answer: B  
Objective: A.APR.7