

Operations with Rational Expressions Review

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Simplify each expression.

1) $\frac{6}{n+1} + \frac{3}{n-1}$

2) $\frac{5n}{n+6} + \frac{5n}{2n-1}$

3) $\frac{6}{4} - \frac{n+4}{n-2}$

4) $\frac{2x}{3x+3} - \frac{3}{2x-5}$

5) $\frac{6a}{a+4} + \frac{4a}{4a^2-12a}$

6) $\frac{6}{3b-2} + \frac{5b}{b-1}$

Simplify each and state the excluded values.

7) $\frac{(k-3)(7k+2)}{(7k+2)(7k+5)} \cdot \frac{7k+5}{k-4}$

8) $\frac{6(x-5)}{2(x-10)(x-4)} \cdot \frac{2(x-4)}{6}$

9) $\frac{7a-56}{7a^2+68a-20} \cdot \frac{21a^2-13a+2}{21a-7}$

10) $\frac{8p+56}{16p+48} \cdot \frac{2p+6}{p^2-3p-4}$

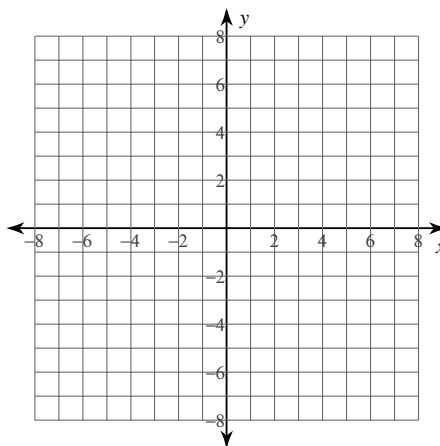
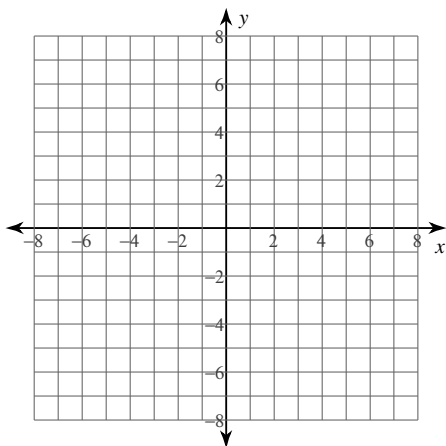
11) $\frac{5x-9}{5x+2} \div \frac{9x(5x-9)}{2x^2(5x+2)}$

12) $\frac{5n^2-25n-70}{4n-32} \div \frac{40n+80}{8}$

Graph each function.

13) $f(x) = \frac{-3x-11}{x+4}$

14) $f(x) = \frac{2x-6}{x-1}$



Answers to Operations with Rational Expressions Review

1) $\frac{9n - 3}{(n - 1)(n + 1)}$

2) $\frac{15n^2 + 25n}{(2n - 1)(n + 6)}$

3) $\frac{n - 14}{2(n - 2)}$

4) $\frac{4x^2 - 19x - 9}{3(2x - 5)(x + 1)}$

5) $\frac{6a^2 - 17a + 4}{(a - 3)(a + 4)}$

6) $\frac{-4b - 6 + 15b^2}{(b - 1)(3b - 2)}$

7) $\frac{k - 3}{k - 4}; \left\{-\frac{2}{7}, -\frac{5}{7}, 4\right\}$

8) $\frac{x - 5}{x - 10}; \{10, 4\}$

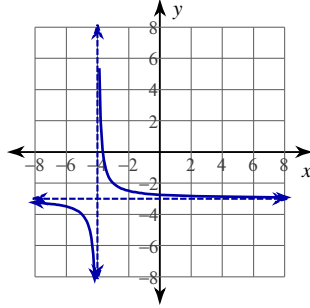
9) $\frac{a - 8}{a + 10}; \left\{\frac{2}{7}, -10, \frac{1}{3}\right\}$

10) $\frac{p + 7}{(p - 4)(p + 1)}; \{-3, 4, -1\}$

11) $\frac{2x}{9}; \left\{-\frac{2}{5}, 0, \frac{9}{5}\right\}$

12) $\frac{n - 7}{4(n - 8)}; \{8, -2\}$

13)



14)

