

**Math R3 Review for final practice F**

1	<i>Simplify:</i> $\frac{9-x^2}{x^2-10x+21}$
2	$\frac{5x+10}{x^2+5x+6} \div \frac{10x}{4x+12} =$
3	$\frac{3}{x^2(x+2)} - \frac{4}{x(x+3)} =$
4	$\frac{\frac{7}{2x^2}-4}{\frac{3}{4x}-5} =$
5	$(3 - \sqrt{7})(2 + 3\sqrt{7}) =$
6	<i>Rationalize denom:</i> $\frac{4}{3\sqrt{5}}$
7	<i>Rationalize denom:</i> $\frac{2}{3-\sqrt{7}}$
8	$\sqrt{50x^3y^7} \cdot \sqrt{2x^5y^3}$
9	$3\sqrt{75} + 2\sqrt{27}$
10	$25^{-\frac{3}{2}} =$

Answers:

1	$-\frac{3+x}{x-7}$
2	$\frac{2}{x}$
3	$\frac{-4x^2 - 5x + 9}{x^2(x+2)(x+3)}$
4	$\frac{14 - 16x^2}{3x - 20x^2}$
5	$-15 + 7\sqrt{7}$
6	$\frac{4\sqrt{5}}{15}$
7	$3 + \sqrt{7}$
8	$10x^4y^5$
9	$21\sqrt{3}$
10	$\frac{1}{125}$