

## M\$5 Homework 20

1. Simplify:

a)  $\sqrt[4]{81x^{16}y^8}$

b)  $2\sqrt{13} + (\sqrt{256} - \sqrt{52})$

2. Simplify:  $\frac{8\sqrt{24} + 12\sqrt{2}}{4\sqrt{2}}$

3. Rationalize the denominator:

a)  $\frac{6}{\sqrt{27}}$

b)  $\frac{5}{4\sqrt{2}}$

4. Rationalize the denominator:

a)  $\frac{9}{5 - \sqrt{13}}$

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

5. Solve:  $\frac{2}{y+5} + \frac{20}{y^2-25} = 1$

6. Solve, state the solution set, and graph the solution set on a number line:  $x^2 + x - 2 < 12x - 32$