

Review for Exam 2

Section 2.4

Imaginary numbers

Section 2.5

**Radical equations (check for extra solutions)
absolute value equations, etc.**

Section 2.6

Inequalities

absolute value inequalities

applications

Section 3.1

distance formula: $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

midpoint formula: $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$

Section 3.2

graphing

circles: $(x - h)^2 + (y - k)^2 = r^2$

half circles

Section 3.3

Lines:

$$\text{slope} = m = \frac{y_2 - y_1}{x_2 - x_1}$$

equations of lines:

$$(1) \ y - y_1 = m(x - x_1)$$

$$(2) \ y = mx + b$$

**know how to leave in general form
applications**

Section 3.4 Functions

Finding function values or expressions

Example: Given: $f(x) = x^2 - 3$, find: $\frac{f(a+h) - f(a)}{h}$

Find domain, range, increasing, decreasing...given a graph

Find domain given a function

Find a linear function

word problems